

NEIL ABERCROMBIE
Governor



RUSSELL S. KOKUBUN
Chairperson, Board of Agriculture

SCOTT E. ENRIGHT
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512
Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF RUSSELL S. KOKUBUN
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEES ON AGRICULTURE, COMMERCE AND
CONSUMER PROTECTION AND HEALTH

THURSDAY, FEBRUARY 19, 2013
9:00 A.M.
ROOM 229

HOUSE BILL NO. 174 HD2
RELATING TO FOOD LABELING

Chairpersons Nishihara, Baker, Green, and Members of the Committees:

Thank you for the opportunity to testify on House Bill No. 174 HD2. The purpose of this bill is to require labeling and restrictions on imported genetically engineered produce and authorizes labeling of non-genetically engineered food. The Department opposes this measure because, following the reductions-in-force in 2009, the Department is still challenged with meeting many existing statutory mandates due to inadequate staffing. Furthermore, the Department does not have the expertise nor the appropriate technology to identify those products that contain genetically engineered organisms. The implementation and enforcement of the proposed measure are extremely difficult for the Department to accommodate.

The Department would also defer to the Office of the Attorney General with regard to the constitutionality of the bill due to preemption by the federal government and potential violations of the Commerce Clause and the First Amendment protections of commercial speech.

Thank you for this opportunity to present testimony.





Hawaii Farm Bureau
F E D E R A T I O N

2343 Rose Street • Honolulu, Hawaii 96819
Phone: (808) 848-2074 • Neighbor-Islands: (800) 482-1272
Fax: (808) 848-1921 • Email: info@hfbf.org
www.hfbf.org

March 21, 2013

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
SENATE COMMITTEE ON HEALTH

TESTIMONY ON HB 174, HD2
RELATING TO FOOD LABELING

Room 229
9:00 AM

Chair Nishihara, Chair Baker, Chair Green, and Members of the Committees:

I am Dean Okimoto, President of the Hawaii Farm Bureau Federation (HFBF). Organized since 1948, the HFBF is comprised of 1,950 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate, and advance the social, economic, and educational interest of our diverse agricultural community.

HFBF respectfully requests that you oppose HB 174, HD2 related to food labeling.

For many years, HFBF has come before the Legislature and advocated for keeping food labeling requirements at the federal level from a regulatory perspective. HFBF believes in the science that is guiding the FDA regarding the nutrition facts and ingredients information contained on US food labels. HFBF is confident in the FDA's ability to keep our food safe and believes that additional state or local food labeling requirements 1) will confuse consumers, 2) will be costly to implement, 3) will be very likely impossible to effectively enforce, and 4) will likely lead to increased local food costs for Hawaii consumers.

HFBF understands why telling food producers, food distributors, and grocery chains that "we the people" have a right to know what's in our food is so appealing. But the idea is problematic for several reasons, the least of which being that labels for GMO foods imply that there's something wrong with them, when according to the American Medical

Association (AMA), World Health Organization, and National Academy of Science, there really isn't.

Also troubling is the fact that misleading the public about science often backfires. Inaccurate sensational political advocacy masquerading as science teaches the public to distrust scientists and wrongly doubt their conclusions. The same applies to teaching people to fear GMO foods without cause.

We humbly request that you oppose this measure. Thank you for this opportunity to provide our opinion on this important matter.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:55 PM
To: AGL Testimony
Cc: lfoster@heartofhawaii.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB 174 Opposition.docx

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ray Foster	Molokai Farm Bureau	Oppose	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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SENATE HEARING

COMMITTEE ON AGRICULTURE

Senator Clarence K. Nishihara, Chair

Senator Ronald D. Kouchi, Vice Chair

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

Rosalyn H. Baker, Senator Chair

Senator Brickwood Galuteria, Vice Chair

COMMITTEE ON HEALTH

Senator Josh Green, Chair

Senator Rosalyn H. Baker, Vice Chair

DATE: Thursday, March 21, 2013

TIME: 9:00am-11:00am

PLACE: Conference Room 229

State Capitol

415 South Beretania Street

Testimony to OPPOSE HB174

Requiring labeling of food produced with genetically engineered material

Aloha Honorable Chairpersons and Committee Members:

I strongly oppose HB174. Please consider the following comments:

- **FOOD PRODUCT LABELLING IS THE KULEANA OF OUR US FOOD AND DRUG ADMINISTRATION:** Food product labeling is best handled on a nationwide basis. State and County legislation related to food labeling will only add confusion, cost and unnecessary litigation. We may even see restrictions on the volume and variety of food shipped to Hawaii.
- **GMO CROPS ARE SAFE AND NO DIFFERENT:** The FDA has determined that where genetically-modified crops don't differ from non-GM crops, that products containing them don't have to be labeled. FDA does require the product to be labeled if the ingredient is a potential allergen, or somehow changes the nutritional properties of the food. To date, no approved biotech crop is either an allergen, or has any significant nutritional differences from non-GM counterparts.
- **VOLUNTARY LABELING ENSURES CONSUMER CHOICE:** Individuals who make a personal decision not to consume food containing GM ingredients can easily avoid such products. In the U.S., they can purchase products that are certified as organic under the National Organic Program. They can also buy products which companies have voluntarily labeled as not containing GM ingredients. The law allows for voluntary labeling so long as the information is accurate, truthful and avoids misleading consumers about the food.

Respectfully submitted,

Raymond J. Foster



Senate Committee on Agriculture
Testimony in strong support of HB 174
03-21-13 9:00 AM in conference room 229

March 20, 2013

Honorable Chairman Nishihara, Vice Chairman Kouchi and Committee members,

Vincent Mina
President
Maui

As close observers of the debate over the Genetically Modified Organism issue along with biotechnology in general, the Hawaii Farmers Union, as well as the National Farmers Union is 100% in favor of labeling these novel organisms for a number of reasons, but 2 come readily to mind:

Simon Russell
Vice-President
Maui

GMO technology though generally regarded as safe by FDA and some scientists, are not in many countries including most OECD countries have labeling requirements for identification of these products. With all due respect this is so that people like you and me can have a choice of what they are eating, and should there be negative side effects from consumption of these products or their derivatives, the ingredients can be tracked and used in any investigation of future negative health effects. There are conclusive studies of the bacteria *Bacillus Thuringiensis* originating from GM corn in the umbilical cord blood of unborn babies as well as in the blood stream of pregnant women . BT gene naturally found in nature pulses on and off, where as BT gene being implanted into GM food crops to kill pests remains turned on 24/7 and notably is reaching the bloodstreams of women and unborn babies. A landmark study found 93 per cent of blood samples taken from pregnant women and 80 per cent from umbilical cords tested positive for traces of the chemicals. The new study was carried out by independent doctors at the Department of Obstetrics and Gynecology, at the University of Sherbrooke Hospital Centre in Quebec, Canada. Read more: <http://www.dailymail.co.uk/health/article-1388888/GM-food-toxins-blood-93-unborn-babies.html#ixzz2O4Brub5Y>

David Case
Secretary
Kona

Ray Maki
Treasurer
Kauai

The next reason to label the GMOs in our food chain is so that if GMOs begin to transfer their properties into humans eating them, it can be tracked. We know that viral promoters are used as the vectors to promote the traits biotech firms wish to imbue upon their target. It is a similar process to getting a cold, except the virus infects the host organism, and brings along a little something that will profit the corporation performing the mutation. In most cases it is a resistance to roundup, or a bacterium that kills pests, but who is to say that those genes cannot keep promoting their genetic code after ingestion, and indeed there are studies that show this happening. So I ask you to err on the side of caution, and support labeling so that all who choose to do so can ingest what they want.

Moriah Smith
Member
Oahu

Respectfully submitted,

Vincent Mina
President HFUU Hawaii Farmers Union United



HAWAII FOOD INDUSTRY ASSOCIATION (HFIA)
1050 Bishop St. PMB 235
Honolulu, HI 96813
Fax : 808-791-0702
Telephone : 808-533-1292

DATE: ~~Thursday, March 21, 2013~~
TIME: ~~9:00am-11:00am~~
PLACE: ~~Conference Room 229~~

TO:

COMMITTEE ON AGRICULTURE
Senator Clarence K. Nishihara, Chair
Senator Ronald D. Kouchi, Vice Chair

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
Senator Rosalyn H. Baker, Chair
Senator Brickwood Galuteria, Vice Chair

COMMITTEE ON HEALTH
Senator Josh Green, Chair
Senator Rosalyn H. Baker, Vice Chair

FROM: Hawaii Food Industry Association - Lauren Zirbel, Executive Director

RE: HB 174, HD 2 RELATING TO FOOD LABELING

Imposes labeling requirements and import restrictions on imported genetically engineered produce. Authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations. Effective July 1, 2112.

Chairs & Committee Members:

The Hawaii Food Industry Association opposes this bill.

The practical reality of enforcing this bill will be a nightmare. If the distributor/grower does not label the produce or advise the retailer that the product is GMO then the retailer is potentially liable for the mislabeling. A retailer cannot identify GMO product by visual or taste inspection.

As proposed, this labeling required would be inconsistent to federal requirements, and therefore, costly to implement. Hawaii imports 85% of the food consumed in the state. **Hawaii's food demands are not large enough to force domestic and foreign food suppliers to meet these labeling requirements.** As such, the cost will be borne by Hawaii's consumers.

This is a federal issue and should be dealt with at that level, with the onus for labeling resting with manufacturers and suppliers, not retailers. Thank you for the opportunity to provide testimony.



Hawaii Cattlemen's Council, Inc.

P O Box 437199 Kamuela HI 96743
Phone (808) 885-5599 • Fax (808) 887-1607
e-mail: HCattlemens@hawaii.rr.com

SENATE COMMITTEE ON AGRICULTURE
SENATE COMMITTEE ON COMMERCE & CONSUMER PROTECTION
SENATE COMMITTEE ON HEALTH
Thursday March 21, 2013 9:00 a.m. Room 229

HB 174 HD 2 Relating to Food Labeling

Imposes labeling requirements and import restrictions on imported genetically engineered produce. A authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations.

Chair Nishihara, Chair Baker, Chair Green, Vice Chairs and Members of the Committees:

My name is Alan Gottlieb, and I am a rancher and the Government Affairs Chairperson of the Hawaii Cattlemen's Council. The Hawaii Cattlemen's Council, Inc. (HCC) is the Statewide umbrella organization comprised of the five county level Cattlemen's Associations. Our 130+ member ranchers are present over 60,000 head of beef cows; more than 75% of all the beef cows in the State. Ranchers are the stewards of approximately 25% of the State's total land mass.

The Hawaii Cattlemen's Council **Strongly Opposes** HB 174 HD 2.

HCC along with our National Organization, the National Cattlemen's Beef Association has always felt that labeling, such as Country of Origin labeling, should be a market driven tool, not a regulatory one. HCC support all types of farming & ranching; Natural, organic, conventional and cutting edge (including GMO, or other science advanced forms) and does not try to endorse one over the other. We don't see that the advancement of one, should be at the risk or detriment of the other. In fact, in the beef industry, we believe it is detrimental for all, if one attempts to market their product by saying or implying the other is bad for consumers. We believe we need to support each other and market our own niche with sensitivity.

We agree consumers have the right to know! Wouldn't it make more sense, for GMO free products to label their products as such, placing it as a premium product in some people's mind. That premium price could then more than pay for adding a label stating the product is GMO free. Food labeled "Organic" generally sell for much more than their non-organic counterpart. Are we next going to propose labeling all non-organic foods "Non-Organic" or any foods not made in Hawaii "Not Made in Hawaii"?

Whole Foods is a great model for giving consumers the things they want to know. They offer organic foods, GMO Free foods, natural foods, and 5 different levels of meat. They don't force producers to label their product GMO or non-organic, but they have signs by food bins letting consumers know if the food in the bin is organic, natural or GMO Free. If this is what consumers want, shouldn't we let markets use this for their competitive advantage.

There is no rational science based reason to "warn" consumers about GMO products. The FDA regulates all food labeling in the United States, and in their scientific judgment, there is no significant difference between foods produced using biotechnology and their conventional counterparts. With over one trillion servings of biotech foods consumed by the public, there has never been a documented incident of any harm to the health of consumers.

Genetic engineering has literally saved the Papaya industry in the State of Hawaii, though some may have you believe otherwise.

Please do not give into the fear-mongers and conspiracy theorists spreading lies on social media. When these conspiracy theorists strongest argument in dispute of rational science from such organizations such as the Food & Drug Administration, The National Academy of Science, the American Medical Association or even your own Attorney General is "Monsanto paid them off", I hope you folks can see what farmers and ranchers are having to deal with these day, rather than taking care of our farms and feeding people the most wholesome food in the world.

The legislature and the Governor has asked the farming and ranching community over and over again to tell them what we need to succeed. Let me tell you unequivocally, this is not one of them.

Thank you for giving me the opportunity to testify on this very important issue.



Cindy Goldstein, Ph. D
Business and Community Outreach Manager
DuPont Pioneer
Waialua Parent Seed, Kekaha Parent Seed
Kunia Research Center, Waimea Research
PO Box 520
Waialua, HI 96791

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, an HTH,

DuPont Pioneer opposes HB 174 H.D.2, imposing labeling requirements on imported genetically engineered produce.

DuPont Pioneer is a seed company with operations in four locations in Hawaii. We carry out plant breeding work at our 2 Hawaii research sites to develop crops with improved characteristics including greater insect and disease resistance and higher yields. Breeding for disease and insect resistance reduces the use of pesticides. Our two parent seed locations multiply seed to develop new hybrids and varieties that are more productive for farmers in the US and around the world. DuPont Pioneer employs approximately 350 people in a wide range of types of jobs on Oahu and Kaua'i.

Years of scientific evaluation show biotech whole foods and foods with genetically engineered ingredients are substantially equivalent and these foods have consistently been shown to be safe. DuPont Pioneer strongly believes in the importance of research and innovation to develop crops that feed a growing world population. Our work is science-based and the introduction of new genetically engineered crops follows years of evaluation and testing under a robust regulatory system

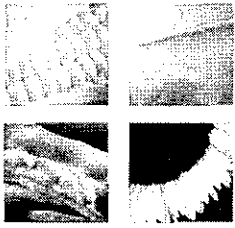
It would be costly to task our Hawaii state agencies with the oversight that will be required to assure imported produce is labeled appropriately as it arrives at our docks and air terminals, as it is transported to local stores, and appropriately labeled at the point of sale to Hawaii's consumers. Costs associated with testing to ensure imported produce is properly labeled, and expenses related to oversight of produce will be passed on to Hawaii's taxpayers. The US Food and Drug Administration already has oversight of food labeling, and carries out evaluation of genetically engineered foods. With FDA already carrying out oversight of labeling of genetically engineered foods, it is redundant for our state agencies to also be engaged with labeling requirements.

Imposing labeling requirements will increase our already high food prices, and some suppliers of produce may decide to no longer send their products to Hawaii. Reduced availability of produce in our local grocery stores and required labeling will drive up prices for Hawaii's consumers shopping at our local markets.

Invasive species have had significant negative impacts on farming and ecosystems throughout Hawaii. Preventing entrance of invasive species into Hawaii is of great importance. Bill language requiring compliance with recommendations of the Invasive Species Council has the potential to set vague standards, subject to broad interpretation in the identification and consideration of threatening species.

Food producers are already using organic and GMO-free labels on produce and food products. Consumers with a preference for GMO-free foods are able to find them in local markets with labels that differentiate them as organic or GMO-free.

Thank you for the opportunity to present testimony in support of science-based decision making, in opposition to proposed legislation requiring labeling of genetically engineered produce imported into Hawaii.



Hawaii Crop Improvement Association

Growing the Future of Worldwide Agriculture in Hawaii

Testimony by Alicia Maluafiti

HB 174 HD 2 – Relating to Food Labeling

The Senate Committees on Agriculture, Consumer Protection and Health

Thursday, March 21, 2013

9 a.m., Room 229

HCIA 2012-2014
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Grant Manning

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Alan Takemoto

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Fred Perlak

Executive Director

Alicia Maluafiti

Position: Strong Opposition

Aloha Chairs Nishihara, Baker and Green, and members of the Committee:

My name is Alicia Maluafiti, Executive Director of the Hawaii Crop Improvement Association, a nonprofit trade association representing Hawaii seed farmers. We strongly oppose HB 174 HD 2 requiring the mandated labeling of imported GMO whole foods.

Anti-GMO and Occupy Honolulu activists have used threats and intimidation to push their anti-science agenda. This bill – and many more like it – have nothing to do with Right to Know but everything to do with shutting down an industry that contributes \$250 million to Hawaii's economy, pays \$30 million to the state coffers in taxes, and employs 2,000 workers in rural communities.

Mandatory labeling is the responsibility of the federal government.

Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe.

The Hawaii Attorney General has already ruled the bill to be unconstitutional.

Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars – all at taxpayer expense.

State-based labeling policies will increase the cost of food.

Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers – especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double!

GMO foods are safe.

The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food.

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Consumers already have a choice

Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

Do what's pono for the state. Kill bill 174.

Monsanto Company
94-520 Kunia Road
Kunia, HI 96759

Testimony Before the Committee on Agriculture and Consumer Protection

March 21, 2013

My name is Fred Perlak, Vice President of Research and Business Operations for Monsanto Hawaii. We **strongly oppose** HB 174 primarily on the basis that there are Federal regulations for labeling that cover long-standing precedents in food regulation. The state does not have the funds, the expertise or the manpower to properly label our food. It will be difficult for State regulators to inspect and test all products being sold or distributed in the State for compliance with a genetically engineered labeling system. There is no evidence of safety concerns or nutritional differences. Any additional costs incurred by food manufactures would be passed on to Hawaii consumers. The USDA estimates that food costs will increase 3-4% in 2013 and we do not want additional costs added on to our already high food bills.

Federal law already requires accurate food labeling that provides information relevant to health, safety and nutrition of all food products sold in the United States. The FDA establishes uniform labeling requirements to be consistent with consumer protection and commerce on a nation wide basis. This agency requires labeling only to indicate that a food raises questions of safety, nutrition or proper usage. Federal research and regulatory agencies have conducted and reviewed years of studies that show no health or safety concerns. Research has found crops currently available from biotechnology to be as safe as those produced via other more conventional methods.

Current labeling regulations do allow for voluntary labeling. Food manufacturers will respond to public demand with products and labels if the demand were genuine and widespread. This bill will cause unnecessary confusion and expense for food retailers and consumers. It is an attempt to add layers of regulation, cost and confusion to our food chain without improving safety or availability. It is certain that if this bill becomes law, the consumer will have fewer choices at higher expense.

Let the marketplace and the Federal guidelines dictate the labeling of our food. Please do not pass HB 174 from committee.

Thank you.

Fred Perlak, Ph.D.
Distinguished Monsanto Science Fellow
Vice President, Business and Research Operations, Monsanto Hawaii

MONSANTO CO.
2111 PIILANI HWY
KIHEI, HAWAII 96753

WRITTEN TESTIMONY FOR THE
Committee on Agriculture
Committee on Commerce and Consumer Protection
Committee on Health
March 21, 2013, 9:00 AM

HB174 Relating to Food Labeling

Chairs and Committee Members:

I am David Stoltzfus, Site Lead for Monsanto on Maui. I oppose HB174 requiring the labeling of some food products due to the use of technology in producing them.

The requirement to label products from a genetically modified crop makes a false or negative assumption that a genetically engineered crop is somehow inferior to conventional or organic crops. As the proponents of this bill have publically stated, labeling bills such as HB174 are just the beginning in an effort to entirely ban the use of technology in food production. Their goal is not to label food for consumer choice, but to eventually eliminate the use of technology in food production. I represent the 300+ employees involved in the seed industry on the island of Maui. These employees and their families' livelihood are at risk when activist movements get credence through faulty legislation like HB174.

The recent announcements by retailers such as Whole Foods and Down to Earth demonstrate that voluntary labeling and consumer choice is already available, and an effective means of providing truthful information to the consumers who desire this. Mandatory labeling is an attempt to discredit a scientifically sound method of food production and will negatively affect the consumer.

I respectfully ask that you do not approve of any form of HB174.

David Stoltzfus
Monsanto Company

March 15, 2013

TO: Sen. Rosalyn H. Baker, Chair, Senate Commerce & Consumer Protection Committee
Sen. Clarence Nishihara, Chair, Senate Agriculture Committee
Sen. Josh Green, Chair, Senate Health Committee

FROM: Richardson Students for Labeling¹

RE: Hawai'i Deputy Attorney General's Memo of March 12, 2013 Concerning H.B. No. 174, H.D. 2 ("HB 174")—Genetically Engineered Organism; Produce; Labeling; Import

It has come to our attention that the Hawai'i State Attorney General's Office, Health and Human Services Division ("the AG"), has produced a widely circulated memorandum for Senator Baker's office. After reviewing the AG's memo, we are concerned that it fails to include important information about HB 174 that is relevant to the current debate over its constitutionality. In the interest of ensuring that the Hawai'i State Senate makes its relevant scheduling and legislative decisions based upon a complete account of the legal issues surrounding HB 174, we respectfully submit the following for your consideration.

HB 174 STANDS ON FIRM LEGAL GROUND

The AG identifies three (3) primary issues of potential difficulty for HB 174. First, that HB 174's labeling requirements may be preempted by federal regulations governing the labeling of food. Second, that HB 174's labeling requirements may violate the First Amendment rights of producers of genetically modified foods by requiring them to engage in commercial speech. And finally, that HB 174 may run afoul of Congress' exclusive authority to regulate interstate commerce, the so-called "Dormant Commerce Clause."

While the AG's memo gives a fair appraisal of potential legal challenges to HB 174, it fails to point out legally significant alternative opinions that militate in favor of HB 174's constitutionality. Judicial decisions in the 9th Federal Circuit strongly suggest that HB 174 may not be preempted by the Federal Food, Drug, and Cosmetic Act ("FDCA"). Additionally, the AG's memo misconstrues the 2nd Circuit Court of Appeals' holding in International Dairy Foods Ass'n v. Amestoy, and overstates its relevance to HB 174. Lastly, while the AG is correct that HB 174 violates the Dormant Commerce Clause, its legal defects can be easily cured. Taken together, these arguments suggest that HB 174 stands on much firmer ground than the AG's memo indicates.

HB 174 MAY NOT BE PREEMPTED BY FEDERAL LABELLING LAWS

As the AG's memo notes, state laws can be either expressly or implicitly preempted.² The Supreme Court has explained that express preemption occurs whenever Congress has expressed a "clear and manifest purpose" to supersede state law.³ Implicit, or "field," preemption occurs whenever the "intent [to preempt state laws] may be inferred from a 'scheme

¹ Richardson Students for Labeling is an informal group of law students at the William S. Richardson School of Law. The opinions expressed in this memorandum are the author's own and should not be attributed to the William S. Richardson School of Law, or the University of Hawai'i at Mānoa.

² Chicanos Por La Causa, Inc. v. Napolitano, 544 F.3d 976, 982 (9th Cir. 2008).

³ Altria Group, Inc. v. Good, 555 U.S. 70, 77 (2008) (citing Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947)).

March 15, 2013

of federal regulation . . . so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it”⁴

However, both of these modes of preemption are tempered by a strong presumption against finding federal preemption of state laws. The 9th Circuit Court of Appeals (“9th Circuit”) has held that in order to find that state law has been preempted “there must be a showing ‘that *no* set of circumstances exists under which the . . . [statute] would be valid.’”⁵ Moreover, the Supreme Court has made clear that when preemption is claimed in areas involving the protection of the health, safety, and welfare of a state’s citizens, the “assumption [that state law is not preempted] applies with particular force.”⁶ The Supreme Court additionally provides that “when the text of a[n explicit] pre-emption clause is susceptible of more than one plausible reading, courts ordinarily accept the reading that disfavors pre-emption.”⁷ In short, while the Federal Government may preempt state laws regarding health, safety and welfare, it must do so in a way that admits of no other construction or intent.

The AG’s memo asserts that HB 174 may be explicitly preempted by 21 U.S.C. § 343-1(a) (section 403A of the Nutrition, Labeling and Education Act, “NLEA”) which lays out areas expressly preempted by the FDCA. One searches §§ 343 and 343-1 in vain for any mention of genetically modified organisms (“GMO”), making any claim to express preemption of GMO difficult to sustain. The AG’s memo suggests that GMO labeling may come under other designations in the FDCA that are expressly preempted by §343-1(a): “definition and standard of identity,” “standards of quality and fill of container,” and “nutrition levels and health-related claims.” However, this overlooks the fact that the FDCA explicitly forbids the establishment of “definition and standard of identity” and “standards of quality” for fresh fruits and vegetable, with a few very specific exceptions.⁸ The remaining designation, defining regulations concerning “nutrition and health-related claims,” is generally concerned with product labeling that claims certain levels of nutrients (“100% of your daily dose of vitamin C”) and claims concerning the health benefits of foods (“Our oatmeal has been shown to lower cholesterol”). While GMO labels may arguably constitute a health warning, it is far from clear that this could overcome the strong presumption favoring non-preemptive readings of federal statutes.

In the alternative, the AG’s memo suggests that GMO labeling may be field preempted by Congress’ expansive and all-encompassing labeling regulations. However, as the United States District Court for the Northern District of California has noted, the

assertion that Congress intended to occupy the field of food and beverage labeling is belied by the NLEA . . . [which] include[s] an express savings clause that *disavows any implied preemption*: ‘The [NLEA] shall not be construed to preempt

⁴ *Lockwood v. Conagra Foods, Inc.*, 597 F. Supp. 2d 1028, 1031 (citing *English v. General Electric Co.*, 496 U.S. 72, 79 (1990)).

⁵ *Committee of Dental Amalgam Manufacturers & Distributors v. Stratton*, 92 F.3d 807, 810 (9th Cir. 1996) (citing, *Chemical Specialties Mfrs. Ass’n, Inc. v. Allenby*, 958 F.2d 941, 943 (9th Cir. 1992)) (emphasis in original) (further citations omitted).

⁶ *Altria Group, Inc. v. Good*, 555 U.S. 70, 77 (2008) (citing *Medtronic, Inc v. Lohr*, 518 U.S. 470, 485 (1996)).

⁷ *Id.*, (citing *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 449 (2005)).

⁸ 21 U.S.C.S. § 341 (LEXIS, Current through PL 112-283) (“No definition and standard of identity and no standard of quality shall be established for fresh or dried fruits, fresh or dried vegetables, or butter, except that definitions and standards of identity may be established for avocados, cantaloupes, citrus fruits, and melons.”).

March 15, 2013

any provision of State law, unless such provision is expressly preempted under [21 U.S.C. § 343-1(a)].⁹

In short, HB 174 may not be preempted by federal labeling laws. The FDCA/NLEA has explicitly ruled out the possibility of field preemption in labeling, meaning that the labeling provisions of HB 174 can only be preempted explicitly. It is far from clear that HB 174 is explicitly preempted by the FDCA.

HB 174 MAY NOT OFFEND THE FIRST AMENDMENT

The AG's memo hinges its entire concern about potential First Amendment violations on a single Second Circuit Court of Appeals ("2d Circuit") case arising from Vermont's attempt to require labeling for milk that contained recombinant bovine growth hormone ("rBGH"), International Dairy Foods Ass'n v. Amestoy, 92 F.3d 67 (2d Cir. 1996). The memo is correct that forced labeling compels producers to engage in speech and that this triggers First Amendment concerns. It is well established that the right to free speech includes a right to refrain from speaking.¹⁰ However, the AG's memo misstates a number of Amestoy's features that are highly relevant to HB 174's labeling requirements.

As an initial matter, it is worth pointing out that Amestoy is a 2d Circuit decision concerning a Vermont regulation on hormone-laden milk. The legal concepts employed in Amestoy do appear to generally track the legal concepts implicated by HB 174. However, the decision in Amestoy is not binding on federal courts in Hawai'i or in the 9th Circuit. Additionally, the facts likely to arise under an HB 174 case may be sufficiently different to render Amestoy inapplicable.

Assuming that Amestoy would be applied in evaluating HB 174, it is important to note that the outcome in any such case is far from clear. The AG's memo suggests that federal courts will apply strict scrutiny in examining the State's regulation of commercial speech in light of the First Amendment. "Strict scrutiny" is a term of art that indicates the highest levels of judicial scrutiny applied to state actions. This is a misstatement of the standard applied in Amestoy and does not make clear that commercial speech receives less First Amendment protection than do other forms of speech.¹¹ Amestoy specifically applied a standard articulated in Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n, 447 U.S. 557 (1980), which requires a state to articulate "a substantial interest to be achieved by restrictions on commercial speech."¹² "Substantial interest" is typically associated with an intermediate scrutiny standard, which is significantly less exacting than strict scrutiny. This may seem like a nit-picky and technical point, however it is important insofar as it makes clear that HB 174 has a lower bar to pass constitutional muster than is suggested by the AG's memo.

⁹ Lockwood v. Conagra Foods, Inc., 597 F. Supp. 2d 1028, 1032. (citing, Pub. L. No. 101-535, § 6(c)(1))(emphasis added).

¹⁰ See, West Virginia State Board of Education v. Barnette, 319 U.S. 624 (1943) ("It is now a commonplace that censorship or suppression of expression of opinion is tolerated by our Constitution only when the expression presents a clear and present danger of action of a kind the State is empowered to prevent and punish . . . involuntary affirmation could be commanded only on even more immediate and urgent grounds than silence.")

¹¹ See, Ohralik v. Ohio State Bar Ass'n, 436 U.S. 447, 453 (1978) ("we . . . have afforded commercial speech a limited measure of protection, commensurate with its subordinate position in the scale of First Amendment values, while allowing modes of regulation that might be impermissible in the realm of noncommercial expression.")

¹² Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n, 447 U.S. 557, 349-50 (1980).

March 15, 2013

In addition to this, the AG's memo significantly overstates the holding in Amestoy. The Amestoy decision turned almost entirely on the fact that Vermont had only articulated "consumer curiosity" as the interest it was seeking to protect.¹³ Far from suggesting that state labeling laws have a high hurdle to overcome, the court simply held that "consumer curiosity alone is not a strong enough state interest to sustain compulsion of even an accurate, factual statement."¹⁴ The court even went so far as to suggest in dicta that a concern for health or safety might well be enough to justify compelled product labeling: "Absent . . . some indication that [labeling] bears on a *reasonable* concern for human health or safety or *some other sufficiently substantial government concern*, the manufacturers cannot be compelled to disclose it."¹⁵ In short, any state interest articulated in HB 174 that is more substantial than mere consumer curiosity will take it outside of the scope of the holding in Amestoy. That does not mean that it will be found to be constitutional, but it does mean that Amestoy does not put an insurmountable First Amendment obstacle in HB 174's way.

It is important not to understate the burden that the state does face in compelling commercial speech. It is not merely enough for the state to recite some substantial interest.¹⁶ Rather the state "must demonstrate that the harms it recites are real and that its restriction will in fact alleviate them to a material degree."¹⁷ Given the large body of testimony the State House of Representatives received concerning the health and environmental risks associated with GMOs, it seems entirely possible that the state could make reasonable determinations that GMO foods implicate health and safety concerns, and that the best way to protect consumers is to empower consumers to make their own decisions about purchasing GMO foods.

HB 174 VIOLATES THE DORMANT COMMERCE CLAUSE BUT IS EASILY CURED

The AG memo's analysis of the Dormant Commerce Clause issue presented by HB 174 calls for no particular complaint. HB 174, as written, implicates interstate commerce insofar as it requires only imported produce to be labeled. State laws that plainly discriminate against out-of-state items are generally *per se* invalid.¹⁸ However, when a law treats in-state and out-of-state commerce the same, the Supreme Court has established a fact-specific test where the court must weigh local benefits against the burden on interstate commerce. The balancing test is articulated in Loren J. Pike v. Bruce Church, Inc.:

Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits . . . the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.¹⁹

In essence, HB 174 will be clearly unconstitutional so long as it only requires imported produce to be labeled. This can be cured by simply requiring local GMO produce to be labeled

¹³ International Dairy Foods Ass'n v. Amestoy, 92 F.3d 67, 73 (2d Cir. 1996).

¹⁴ Id. at 74 (emphasis added).

¹⁵ Id.

¹⁶ Id. at 73.

¹⁷ Id.

¹⁸ See, C & A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383 (1994).

¹⁹ Loren J. Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

March 15, 2013

as well. However, this does not *guarantee* HB 174's constitutionality. If challenged, it will be subjected to a fact-specific balancing test that will take into account the interests the state is attempting to protect and ask whether there is a way to achieve the same result in a way that has less impact on interstate commerce. If the goal is to protect human health and safety, and to do so by allowing consumers to make their own determinations about when to purchase GMO foods, then it is entirely plausible that HB 174 would survive judicial scrutiny. But the nature of the balancing test is such that not much more can be said in terms of probabilities.

CONCLUSION

While the AG's memo raises legitimate concerns about HB 174's constitutionality, many of the stated concerns are arguably misplaced. HB 174 is unlikely to face federal preemption, and if appropriately framed is likely to survive a First Amendment challenge based on compelled commercial speech. As written, HB 174 does present a clear constitutional issue but can be remedied with a simple amendment. On sum, HB 174 stands a very strong chance of surviving the legal challenges identified by the AG if its minor flaws are corrected. Based on that, it is vital that HB 174 move forward so that it can be corrected and heard.

Respectfully,

Richardson Students for Labeling
wsrsfl@gmail.com



regenerations botanical garden
P. O. Box 1137 Kilauea, HI 96754 USA
(808) 652-4118 voice (866) 216-5373 fax info@ribg.org

TESTIMONY OF PAUL MASSEY
BOARD PRESIDENT, REGENERATIONS INTERNATIONAL BOTANICAL GARDEN
ON

H.B. NO. 174, H.D. 1, RELATING TO FOOD LABELING
COMMITTEES ON AGRICULTURE, CONSUMER PROTECTION, AND HEALTH
PUBLIC HEARING

MARCH 21, 2013 9:00AM CONFERENCE ROOM 229

Honorable Senators of the Agriculture, Consumer Protection and Health Committees,

Thank you for this opportunity to submit testimony in strong support of H.B. No. 174, H.D. 2, Relating to Food Labeling. My testimony is submitted in my capacity as President of the Board of Regenerations International Botanical Garden, a 501(c)(3) nonprofit organization based on Kaua'i.

Our organization helps to empower Hawai'i residents to grow their own food by providing training and technical support in sustainable gardening and agriculture, with a primary emphasis on vegetable and other crop seed that can be dependably produced by Hawai'i's gardeners and farmers. Ensuring a locally-adapted seed supply is a critical component of food security for any region.

There is significant risk that seed from genetically engineered (GE) produce is inadvertently making its way into gardens and farms across Hawai'i. An example is GE papaya developed at the University of Hawai'i's College of Tropical Agriculture and Human Resources. When consumers purchase GE papaya fruits at local markets, they will often replant the seed if they liked the taste of the fruit; seeds also make it into the compost pile, sprout and grow a papaya tree. Whether grown intentionally or spontaneously, these GE papaya trees pass on their genetically engineered traits to other papayas through cross pollination, resulting in genetic alteration of our locally grown food supply. This contamination has potentially devastating health and legal consequences. Numerous independent studies have shown the risk to human health from eating GE foods. From a legal standpoint, genetically engineered organisms are patented and farmers across the United States and globally have been sued for saving their own seed that was contaminated by GE crops growing within pollination range of their non-GE crops. Genetically engineered winter squash imported into Hawai'i could easily contaminate our locally grown squash exactly as GE papayas have done.



regenerations botanical garden
P.O. Box 1137 Kilauea, HI 96754 USA
(808) 652-4118 voice (866) 216-5373 fax info@ribg.org

H.B. No. 174, H.D. 2 will give consumers the ability to discern if the produce they are purchasing contains GE seed, and lead to better stewardship of our local food supply. In order for it to be more effective in this regard, and to avoid this Bill's risk of violating the Commerce Clause as it is currently written, we request that the Bill be amended to also regulate locally produced GE produce.

Thank you again for your consideration of my testimony.

Paul Massey
President, Regenerations International Botanical Garden Board of Directors



March 21, 2013

Senator Clarence K. Nishihara, Chair
Committee on Agriculture

Senator Rosalyn H. Baker, Chair
Committee on Commerce and Consumer Protection

Senator Josh Green MD, Chair
Committee on Health

RE: HB174 HD2 – OPPOSE

Dear Chair Green, Chair Nishihara, Chair Baker and Members of the Committee:

The Grocery Manufacturers Association¹ (GMA) and its more than three hundred members respectfully oppose HB174 HD2 because such a mandate presupposes an issue with food safety and does everything to discourage investment in science and technology that could bring about more efficient operations and better, more nutritious foods.

Mandatory labeling of food products containing genetically engineered ingredients are misguided and unnecessary. The United States Food and Drug Administration (FDA) already regulates the introduction of and labeling of biotech foods. Producers are legally responsible to the FDA for the safety and wholesomeness of any food product placed on the market and all foods, regardless of whether they are produced using biotechnology or not, are regulated for their individual safety, toxicity and the presence of allergens.

¹ Based in Washington, D.C., the Grocery Manufacturers Association is the voice of more than 300 leading food, beverage and consumer product companies that sustain and enhance the quality of life for hundreds of millions of people in the United States and around the globe.

Founded in 1908, GMA is an active, vocal advocate for its member companies and a trusted source of information about the industry and the products consumers rely on and enjoy every day. The association and its member companies are committed to meeting the needs of consumers through product innovation, responsible business practices and effective public policy solutions developed through a genuine partnership with policymakers and other stakeholders.

In keeping with its founding principles, GMA helps its members produce safe products through a strong and ongoing commitment to scientific research, testing and evaluation and to providing consumers with the products, tools and information they need to achieve a healthy diet and an active lifestyle.

The food, beverage and consumer packaged goods industry in the United States generates sales of \$2.1 trillion annually, employs 14 million workers and contributes \$1 trillion in added value to the economy every year.

Furthermore, after decades of scientific review, the FDA determined that genetically enhanced foods are equivalent to foods developed through crossbreeding, and other traditional methods. Thus, compulsory state labeling provides no additional significant or useful information to consumers. In fact, research shows that mandatory labeling of biotechnology products has the negative impact of misleading consumers to believe foods derived from biotechnology are harmful when the best current scientific evidence indicates, they are not.

GMA supports a consumer's right to obtain important information about the health and safety of food products and we are committed to informing consumers about modern biotechnology. GMA member companies have made information available through consumer "1-800" numbers, supermarket brochures and other avenues.

Simply put, labeling food derived through biotechnology goes beyond educating the consumer about food safety -- it is designed to require "warning labels" that focus upon the process by which a food was produced. Requiring warning labels for these products will create a false impression that there are dangers associated with consumption of such products or that their nutritional value has been diminished. Furthermore, mandatory labels for these products would present a tremendous and costly enforcement problem to the state and result in huge costs to food processors, retailers and ultimately, consumers, while producing absolutely no benefit.

For these reasons, GMA respectfully opposes HB174 HD2.

Sincerely,



John Hewitt
Western Region Director
Grocery Manufacturers Association



CAPITOL CONSULTANTS OF HAWAII, LLP
222 South Vineyard Street Suite 401, Honolulu, Hawaii 96813
Office: 808/531-4551 Fax: 808/533-4601
Website: www.capitolconsultantsofhawaii.com

March 21, 2013

Senator Clarence K. Nishihara, Chair
Committee on Agriculture

Senator Rosalyn H. Baker, Chair
Committee on Commerce and Consumer Protection

Senator Josh Green, Chair
Committee on Health

RE: HB174 HD2 – OPPOSE

Dear Chair Nishihara, Chair Baker, Chair Green, and Members of the Committee:

My name is John Radcliffe and I represent Monsanto. We oppose HB174 HD2 on grounds of constitutionality, science, common sense, and fairness.

The Attorney General of Hawaii has issued a formal opinion that HB174 HD2 is unconstitutional and violates the US Constitution in multiple areas: it violates the 1st Amendment; it violates the Commerce Clause, and it is preempted by the Supremacy Clause.

Competent geneticists are unanimous in finding that genetically modified organisms are, in the words of one of the best, most published, and most respected in the world, Dr. James Brewbaker of the University of Hawaii: "absolutely safe." All of the other UH agricultural scientists agree.

But even if it would not violate the US Constitution, and even if the arguments of the anti-GMO adherents were not so absolutely invalid, it violates plain common sense to impose a ban on produce that will force the State Department of Agriculture to close our ports while agricultural inspectors cull through absolutely safe shiploads of foodstuffs from around the world—to look for contraband that in any other jurisdiction—isn't. That was the testimony of Carol Okada of the Department of Agriculture. The Department of Health has similarly weighed in, also in opposition, saying that labeling is not, in the words of Loretta Fuddy, the Director, a health issue.

If not a health issue, and if, as the Department of Agriculture has said, it cannot be physically apprehended without closing the ports—and there would be no reason to do that, other than this hysteria driven legislation, because as Dr. Brewbaker has said, GMO produce is "absolutely safe," and if the legislation violates the federal law and the US Constitution, then why do it?

Because loud angry voices, claiming to speak for the people, are clamoring for it.



TESTIMONY BEFORE THE SENATE COMMITTEES ON
AGRICULTURE, COMMERCE & CONSUMER PROTECTION
AND HEALTH

HOUSE BILL 174, HD2

RELATING TO FOOD LABELING

PRESENTED TO THE TWENTY-SEVENTH LEGISLATURE
STATE OF HAWAII

MARCH 2013

CHAIRPERSONS NISHIHARA, BAKER, GREEN and Members of these Committee:

STRONGLY OPPOSE.

My name is Loren Mochida, Director of Agricultural Operations at W. H. Shipman, Limited in Keaau on the Big Island. We are a local kamaaina-family owned land management company that is engaged in Agriculture and Commercial/Industrial development and leasing. We currently lease lands to over 125 individually growers at W.H. Shipman, Ltd. I am also representing the Hawaii Papaya Industry Association (HPIA) with over 150 Members.

W. H. Shipman, Ltd., their growers, and HPIA are strongly opposed to HB 174, HD2, Relating to Food Labeling. Labeling requirements, as regulated by the Food and Drug Administration (FDA), is intended to communicate information that is relevant to health, safety, and nutrition. FDA states that there is no significant difference between foods produced using biotechnology and their conventional counterparts.



The Hawaii Papaya Industry Association (HPIA) coordinated the deregulation of the genetically engineered papaya "RAINBOW" in CONUS and Canada. Both countries do not require labeling of this safe papaya as it was developed no differently than the conventional breeding techniques. Without the biotechnology of the Rainbow papaya, there would be no papaya industry in the state of Hawaii today.

The United States Department of Agriculture (USDA), Environmental Protection Agency (EPA), and Food and Drug Administration (FDA) have already proven that the biotechnology "Rainbow" papaya is safe for the environment and human consumption. Due to this reason the legislature finds that there are no federal and state requirements that these foods be labeled. We have been eating this delicious biotech papaya for over 12 years without any ill or side effects.

GMO foods imported and approved by the U.S Government are not any different from GMO foods that were produced and approved in Hawaii. My recommendation is to label any food to Hawaii only from foreign countries.

Authorizing labeling requirements of non-genetically engineered foods will give people more choices which they are already doing. NON-GMO foods are already being labeled as such in organic and natural food stores and also by Whole Foods.

Thank you very much for the opportunity to provide testimony on HB 174, HD 2.

MOMS ON A MISSION, O'AHU CHAPTER
momsonamissionoahu@gmail.com
O'ahu Moms on a Mission Facebook

SENATE COMMITTEE ON AGRICULTURE
SENATE COMMITTEE ON CONSUMER PROTECTION
SENATE COMMITTEE ON HEALTH

March 21, 2013

Aloha Chair Nishihara, Chair Baker, Chair Green and Committee Members:

Thank you for the opportunity to testify on behalf of HB174. I represent Moms on a Mission, O'ahu Chapter and we strongly support this bill. We are a group of mothers who are very concerned about what we are feeding are children. As the awareness regarding GMOs grows, so do the questions regarding their safety.

As mothers, we read labels and look at many different pieces of information before making purchases. However, our decisions are limited when foods are not appropriately labeled. We have noticed that soy, corn, cottonseed oil and canola are being added to many of the foods that are marketed and consumed by children. These ingredients may be genetically modified and consumers are not aware. It is our understanding that there are many issues regarding GMOs in our food supply.

Scientists worldwide have stepped forward to express concern regarding the safety of these foods. Concerns range from environmental issues to potential health risks such as increases in food allergies. We also understand that over 60 countries have either banned or require labeling of GMOs. We want the same right to know so we can make informed decisions for our children.

While a recent study done by Dr. Seralini has been widely criticized, the French Food Safety Agency (ANSES) and the European Food Safety Authority (EFSA) concluded that more long term feeding studies need to be conducted. ANSES and EFSA also stated that the studies should be done independently with public funds and not through the biotech industry. Obviously the safety of these foods is in question if there is the need for more testing.

We are requesting that this bill be amended to include the labeling of locally grown produce. The Rainbow papaya is already being labeled prior to export to Japan. We deserve the same right to know.

We urge you to vote yes to HB174.

Sincerely,
Mitsuko Hayakawa
Moms on a Mission, Oahu Chapter



LEAGUE OF
WOMEN VOTERS*

League of Women Voters of Hawaii

49 South Hotel Street, Room 314 | Honolulu, HI 96813

www.lwv-hawaii.com | 808.531.7488 | voters@lwvhawaii.com

Committee on Agriculture
Committee on Commerce and Consumer Protection
Committee on Health

Senator Clarence K. Nishihara, Chair, Committee on Agriculture
Senator Rosalyn Baker, Chair, Committee on Commerce and Consumer Protection
Senator Josh Green, Chair, Committee on Health

Thursday, March 21, 2013, 9:00–11:00 am, Conference Room 229
HB 174, SD 2 Relating to Food Labeling

TESTIMONY

Janet Mason, Legislative Committee Member, League of Women Voters of Hawaii

Chairs Nishihara, Baker, and Green, and Committee Members:

The League of Women Voters of Hawaii opposes HB 174 SD 2 which imposes labeling requirements and import restrictions on imported genetically engineered produce

We support the intent of the HB 174 HD 2 but are concerned that the regulatory and market-based infrastructure at the national and state levels is not in place to support its goals.

We question whether local produce can or should be exempted from the reporting requirements for imported produce; whether “not knowingly or intentionally modified” are enforceable terms; and whether these reporting requirements will unintentionally restrict the supply of produce to Hawaii. We find the current status of the bill confused in terms of supply, demand, and operational efficacy.

We therefore recommend holding off passing this bill until sufficient discussions and actions have taken place to ensure its efficient and effective implementation.

We urge you to vote down this bill. Thank you for the opportunity to submit testimony.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:20 AM
To: AGL Testimony
Cc: Kirby.kester@basf.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kirby Kester	BASF/HCIA	Oppose	Yes

Comments: Labeling is a political issue that affects consumer acceptance and might have positive effects on marketability of our products in the future by creating awareness of the already broad prevalence of GM technology use in food production. Labeling addresses consumer choice; it is not a safety issue. We support requirements for accurate and informative product labels that communicate information that is relevant to health, safety and nutrition. In order to provide higher transparency for customers and consumers, we welcome any sort of labeling as long as it is not misleading or discriminatory. However, implementation of labeling may be expensive to implement for the food and feed value chain. Any labeling provisions should be supported by reliable, validated methodologies for detection of transgenic proteins or DNA. Workable labeling threshold levels are necessary to ensure accurate labeling. In such countries where labeling is mandatory, the presence of technically unavoidable or incidental occurrence of traces of GM components should be covered by a non-labeling threshold for such presence. I do not believe that HB174 will uphold our position. Kind Regards, Kirby Kester Applied Genetics Manager BASF

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:53 AM
To: AGL Testimony
Cc: ChoonJamesHawaii@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Choon James	Country Talk Story	Support	Yes

Comments: SUPPORT the bill to label GMO foods, without further "gut or replace" that may drastically alter the content of this bill. The public has the right to know what they eat. The tofu I buy in Foodland tells me it's non-GMO. It's not difficult for processors to disclose to the public. Mahalo!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:38 PM
To: AGL Testimony
Cc: aipohaku@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Vince Kana`i Dodge	`Ai Pohaku- the Stone Eaters	Support	Yes

Comments: Aloha Senators, mahalo for hearing HB174. We at `Ai Pohaku support HB174 because we love gmos in our food. We love that in every cell of genetically modified foods we get the herbicide roundup and/or Bt bacteria and in the near future the extremely toxic herbicide 2,4D. We want to proudly take our family and friends down the iles of our local super market and buy our favorite gm products. We deserve the right to know! 63 other countries label gm food products, and it is not difficult or costly to put gmo before msg and red dye # 3. HB174 is a weak bill. Please strengthen it and have all products containing gmo labeled. We have the right to know, what we are buying, or not buying. mahalo nui, Vince Kana`i Dodge

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 12:09 AM
To: AGL Testimony
Cc: hokuokekai50@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Lacques	Hawai'i SEED	Support	Yes

Comments: To: COMMITTEE ON AGRICULTURE Senator Clarence K. Nishihara, Chair Senator Ronald D. Kouchi, Vice Chair COMMITTEE ON COMMERCE AND CONSUMER PROTECTION Senator Rosalyn H. Baker, Chair Senator Brickwood Galuteria, Vice Chair COMMITTEE ON HEALTH Senator Josh Green, Chair Senator Rosalyn H. Baker, Vice Chair RE: HB174 HD2 Measure Title: RELATING TO FOOD LABELING. Report Title: Genetically Engineered Organisms; Produce; Labeling; Import Current Referral: AGL/CPN/HTH, WAM Thursday, March 21, 2013 9:00am Conference Room 229 State Capitol 415 South Beretania Street Aloha Senators Nishihara, Baker and Green, My name is Mary Lacques and I am testifying in support of House Bill 174 HD2 with amendments. Please amend HB174 HD2 to include local produce and to recommend that Section 9 be amended to take effect on July 1, 2014 I am testifying in strong support of the passage of HB174 HD2 because consumers have a right to know what they are feeding themselves and their families. Those of us testifying today in support of HB174 HD2 are in agreement and are standing with the majority of Americans who believe we have that right. All of the major national polls have shown that over 90% of Americans support labeling of these transgenic novel products that have been in our food supply for almost 20 years. You have undoubtedly heard from many concerned citizens about the growing list of health and environmental concerns that have been attributed to the ingestion and cultivation of GE products. Many Hawaii residents have never heard of GE or GMO, let alone the labeling issue, but I would like to point out that Hawaii has a long history of supporting labeling, primarily at the national level, but with recent activity of support at local, grassroots levels. In 1999, the late Congresswoman Patsy Mink signed on to a letter supporting a recommendation to the Food and Drug Administration to label GE food. Mink was a co-sponsor of House Resolution 3377, The Genetically Engineered Right to Know Act, and also co-sponsored H.R. 713: "to require the Secretary of Agriculture to complete a report regarding the safety and monitoring of GE food." In 2001 Congresswoman Mink stated her intention to again co-sponsor the GE Right to Know Act, which requires "that food containing a genetically engineered material, or that is produced with a GE material be labeled accordingly." In March of last year Senator Akaka signed on to a bicameral letter addressed to the Food and Drug Administration asking the agency to require the labeling of GE food. In June, both Senator Akaka and the late Senator Inouye voted in favor of an amendment reaffirming the rights of states to pursue their own labeling of GE food laws. (Sanders Amendment). Here at the County level, in December of 2011 and 2012, Maui, Kauai and Hawaii County all passed labeling resolutions, followed by Honolulu County in May of 2012. At our most grassroots level of civic

engagement, the Neighborhood Boards, the Ewa, Kapolei, Nanakuli, Waianae, Makiki, and Ala Moana neighborhood boards all passed resolutions in support of labeling of products that contain GE ingredients. More neighborhood boards would undoubtedly have signed on by now but we are all volunteers and individuals working on our own time educating the public about GE in our food supply. Once people are given information and resources to do their own research, they wholeheartedly agree that the public should be able to determine their own food choices through labeling. Please support the wisdom of our leadership in Washington, our county councils and at the neighborhood boards by voting in support of HB 174 HD2 and moving Hawai'i one step closer to having the Right to Know what we are feeding our families. Mahalo for the opportunity to testify, Mary Lacques P.O. Box 14 Hale'iwa 96712

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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Testimony of the
County of Kaua'i
Bernard P. Carvalho, Jr., Mayor
4444 Rice Street, Suite 235
Līhu'e, Hawai'i 96766
Tel: (808) 241-4900; Fax (808) 241-6877

Re: HB 174 HD2 Relating to Food Labeling
Before a Joint Hearing of the
Senate Committees on Agriculture, Commerce and Consumer Protection, and Health

March 20, 2013

Aloha from the Garden Island!

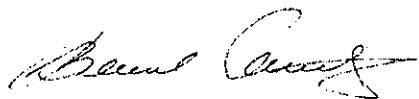
Mahalo for your leadership in hearing testimony on the issue of food labeling. On Kaua'i, as in the rest of the state, there is currently much dialogue regarding many issues relating to our food supply.

It is my belief that education is key to bridging the gaps in understanding, and that we must work together to ensure that every resident of our state has access to healthy food choices.

Food labeling could assist in this educational effort; however, I understand that there are legal issues with this bill as it currently reads. There are many ways in which labeling could be accomplished, and I believe the dialogue on this issue should not be rushed. If a labeling bill is passed, it must be done so that we are reasonably certain it could withstand a legal challenge, and has broad agreement among the various stakeholders.

Mahalo again for your attention to this important issue. We look forward to continuing dialogue toward a successful outcome.

Respectfully submitted,



Bernard P. Carvalho, Jr.
Mayor, County of Kaua'i

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:54 PM
To: AGL Testimony
Cc: robert.paull@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Paull House Bill 174 Senate Hearing 2013 March 21.pdf

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Robert Paull	Individual	Oppose	Yes
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:26 PM
To: AGL Testimony
Cc: mstoutemyer@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB174Testimony.docx

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Stoutemyer	Individual	Oppose	Yes

Comments:

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nishihara1 - Amanda

From: GEORGE, JODY R (AG/2111) [jody.r.george@monsanto.com]
Sent: Tuesday, March 19, 2013 4:56 PM
To: AGL Testimony
Subject: HB 174

Categories: Red Category

I would like to oppose any legislation that is anti science. HB 174 is just that. The scientific consensus is that GMO products are safe. Mandated GMO labeling sets a foundation that it is about consumer choice. The fact is that the choice already exists for consumers. If a consumer would like to avoid GM technology, they can purchase products that are labeled "organic" or "non-GMO". I have seen these products already on the shelves. Market driven labeling makes more sense than the state mandating labeling that will do nothing but spread unwarranted fear and raise costs for consumers.

Jody George

(808)357-5439

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:34 PM
To: AGL Testimony
Cc: maliadamon@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Malia Damon	Individual	Support	Yes

Comments: It is our fundamental right to know if our food has been genetically altered or engineered in any way. Any legislators who oppose this bill are interfering with an individual's basic right and will find themselves on the wrong side of history as labeling bills are most certainly in our country's future. Hawaii should be a leader in this.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:31 PM
To: AGL Testimony
Cc: leilark@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leila Kaaekuahiwi	Individual	Support	Yes

Comments: Aloha mai kakou. My name is Leila Hokulani Kaaekuahiwi and I am writing this testimony in support of HB174 for GMO labeling. I am extremely concerned about GMO foods and can't articulate how important to me it is that this bill be passed. I feel I have a right to know absolutely 100% what I am putting in my body and my family's. As a Kanaka Maoli, I am concerned about the health of my overall community and how the chemicals used in GMO products will impact our health. Please support this bill and the health of our communities, it is so important!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:33 PM
To: AGL Testimony
Cc: ivy@chococat.us
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Ivy McIntosh	Individual	Support	Yes
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Comments: Aloha, I support HB 174. I am a concerned parent of 3 keiki. They are growing and developing in a time when our foods are being altered and NO ONE knows the long term effects. In this country I am noticing we are having issues with infertility, allergies, diseases, and other health issues. I feel it's related to what we are putting in our bodies, collecting in our tissues, and in the womb of mothers. I deserve to know what my children are consuming and not spend countless hours in the store goggling each product/company to make sure they are non-GMO. Please support me and others like me to make wise choices for our keiki because my keiki ARE my greatest investments. Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:41 PM
To: AGL Testimony
Cc: keani_nwr@msn.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Keani Rawlins- Fernandez	Individual	Support	Yes
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:30 PM
To: AGL Testimony
Cc: ijan808@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jan Hayashi	Individual	Support	Yes

Comments: I support that the legislature take another look at GMO labeling. As Hawaii/US citizens, and HUMANS, we deserve the right to know if the foods we eat are "natural" or genetically modified. There is insufficient studies to show that GMO foods are "safe," yet "natural" foods have been around for thousands of years. Doesn't that tell the story? Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:31 PM
To: AGL Testimony
Cc: skmfreitas@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sharde Mersberg Freitas	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:19 PM
To: AGL Testimony
Cc: christidemuth@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christi Demuth	Individual	Support	Yes

Comments: Aloha Senators, This legislation is so very important to the families of Hawaii. We have the right to know if we are eating food that is man made or food that came naturally by God. The Center for Disease Control reports allergies have risen 265%. Crohns disease has seen dramatic increases as well. GMO's may or may not be to blame but if they are not labeled clearly how do we know if we are eating them. No studies have been done. Last week the Honolulu Star asked its readers whether Hawaii should label foods. Over 80% say Yes. You can do the right thing and say that the people of Hawaii have good representation that is not influenced by the heaps of money being poured on you by the BioTech giants or you can show us that the special interests who donate so much to your campaigns take precedence over the will of the people. I urge you do add local produce and pass this law. Mahalo Nui Loa, Christi Demuth Kauai, HI
<http://www.youtube.com/watch?v=zQDOdnRBLqc&feature=youtu.be>

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:02 PM
To: AGL Testimony
Cc: maefuimaono@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Reproductive Toxicology 2011 Aris.pdf

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Me Fuimaono	Individual	Support	Yes

Comments: GMO'S and the effects on Humans and mammals. No mother I know would sign herself or her child up for an experiment on the safety of eating GMO's. However we have unknowingly done just that. In a recent study done in Canada 93% of pregnant women tested positive for cry 1 Ab toxin. This study also found that 80% of their babies also tested positive for cry 1 Ab toxin. And 69% of non pregnant females tested positive for cry 1 Ab. (LeBlanc, 2011). This study states that the women came in contact with the BT toxin through their diet, from eating GMO foods. Why is this important? This study shows that not only are we exposed to BT toxin but women are passing it on to their babies. If the BT toxin can cross the placenta barrier (which is a very strong barrier) what is it doing to the health of our children, who are not only exposed in utero but exposed to it through out their lives through dietary intake. Please with all love and respect do what the people are asking for. In a recent poll by Star Advertiser 80% of people in Hawaii wanted GMO labeling..... That's allot of people. The past month has been full of residents from all of the islands participating in Marches asking for labeling and asking you as our chosen representative's to represent us.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:54 PM
To: AGL Testimony
Cc: italkitchen808@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Trisha Gonsalves	Individual	Support	Yes
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Comments: To:COMMITTEE ON AGRICULTURE Senator Clarence K. Nishihara, Chair Senator Ronald D. Kouchi, Vice Chair COMMITTEE ON COMMERCE AND CONSUMER PROTECTION Senator Rosalyn H. Baker, Chair Senator Brickwood Galuteria, Vice Chair COMMITTEE ON HEALTH Senator Josh Green, Chair Senator Rosalyn H. Baker, Vice Chair RE: HB174 HD2 Measure Title: RELATING TO FOOD LABELING. Report Title: Genetically Engineered Organisms; Produce; Labeling; Import Current Referral: AGL/CPN/HTH, WAM NOTICE OF HEARING DATE: Thursday, March 21, 2013 TIME: 9:00am-11:00am PLACE: Conference Room 229 State Capitol 415 South Beretania Street Aloha Senate Committees, My name is Trisha Gonsalves and I support the labeling of GMOs. As a mother who cares and cooks for my family, I would like to be able to make informed decisions when purchasing food for our meals. I have listened to both sides of the arguments surrounding GMOs and I am very concerned. There are many studies that have proven that GMOs are harmful to the environment and human health. Those that argue that GMOs are perfectly safe, can continue to choose and buy them, but they should be labeled so everyone can make informed choices. I am not a scientist nor a politician, but a mom. It seems quite suspect to me when so many proponents of GMOs want to deny me the basic right to know what I am eating. Millions of dollars were spent in California to deny citizens the right to know if GMOs are in their food. By reasonable deduction it is easy to conclude something is not right. If GMOs truly did not pose a risk, there should be no problem in displaying their presence on an ingredients label. I come before you and humbly ask you to please help us in our plight to make informed decisions while shopping for our families and support HB 174 HD2. I would also like to request that this bill be amended to it's original form to include genetically modified whole foods grown in Hawaii. Thank you for your time and for this hearing, it means so much to me and many many more mothers across the state. Mahalo Nui Loa, Trisha Gonsalves

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nishihara1 - Amanda

From: Jan Shima [info@janshima.com]
Sent: Tuesday, March 19, 2013 8:53 PM
To: AGL Testimony
Subject: GMO labeling

Every human being has a right to know and choose what they are eating.
GMO's MUST be labeled out of moral conscience and because people have
a right to know and choose what they put inside their bodies!
Please make sure GMO's are labeled in Hawaii. Thank you

Jan Shima
info@janshima.com
www.janshima.com

nishihara1 - Amanda

From: cab spates [cabspates@yahoo.com]
Sent: Tuesday, March 19, 2013 9:13 PM
To: AGL Testimony
Subject: HB174,HD2

I'm writing to support bill HB 174,HD2 to require labeling of Genetically Modified Organisms on imported produce etc...

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:24 PM
To: AGL Testimony
Cc: ofstone@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: gfk.leg.LIH_rebuttals.pdf

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By Organization Testifier Position Present at Hearing

Jeri Di Pietro	Hawai`i SEED and GMO Free Kaua`i	Support	Yes
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Comments: Aloha Senate Committee members, Truth in labeling is the basis of our current food labels. Please support the labeling of foods produced through genetic engineering so that consumers will know the true nature of their food. America is nearly the last country to label these foods accordingly. If GMO foods were labeled, you could still buy them but people with food allergies need to know, pregnant mothers, small children, elders or those with impaired immune systems may choose to avoid pesticide resistant grains and fruit. We deserve the right to know. This is a reasonable request, it is a law who's time has come. Global biotech guidelines now allow for states and counties to set labeling laws. Please show that Hawai`i understands this and exercise home rule to protect what our voters want. Over 30 countries have banned the sale of GMO food altogether because health risks are unknown. Please allow for the labeling and let the consumers have a choice. We should not have to guess about food origin and potential allergic reaction when it comes to nutrition. Consumers in our state want to know and we look to you for the passing of legislation at the state level. Aloha and mahalo, Jeri Di Pietro Hawai`i SEED GMO Free Kaua`i

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:28 PM
To: AGL Testimony
Cc: daylinrose.gibson@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Daylin Gibson	Individual	Support	Yes

Comments: I strongly support HB 174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:31 PM
To: AGL Testimony
Cc: jeannine@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeannine Johnson	Individual	Support	Yes

Comments: Genetically modified organisms (GMOs), are produced by genetic engineering, the splicing of genes from one species into those of another. These are not combinations that can happen in nature and are experimental. When I was growing up, I never knew anyone that had any kind of food allergy. Numerous health problems increased after GMOs were introduced in 1996. Food allergies have skyrocketed and many children in the US and Europe have developed life-threatening allergies to peanuts and other foods. Disorders such as autism, reproductive disorders, digestive problems, and others are on the rise. Consumption of GMOs has been directly linked with reproductive problems, immune system deficiencies, accelerated ageing, organ damage and gastrointestinal problems. The American Academy of Environmental Medicine (AAEM) urges doctors to prescribe non-GMO diets for all patients. Labeling of GMOs and food products is essential to Hawai'i's population, just as nutritional labels are. Mahalo!

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nishihara1 - Amanda

From: Shanna Dean [shannadean@gmail.com]
Sent: Tuesday, March 19, 2013 9:37 PM
To: AGL Testimony
Subject: Labeling of GMO foods

I would like to have a voice in support of labeling GMO foods brought into Hawaii as well as GMO foods grown in Hawaii. The people have the right to choose what they eat and who they support. All we are asking for is a label.

Shanna

nishihara1 - Amanda

From: Elise Cevetello [e.cevetello@gmail.com]
Sent: Tuesday, March 19, 2013 9:43 PM
To: AGL Testimony
Subject: I support the intent of HB174 HD2 to label GMO foods as part of consumers' right to know

To whom this may concern,

I am writing this email in testimony that :

I support the intent of HB174 HD2 to label GMO foods as part of consumers' right to know.

Regards,

Elise Cevetello

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:44 PM
To: AGL Testimony
Cc: truerisedesigns@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Archuleta	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: Teo [livingartscollective@gmail.com]
Sent: Tuesday, March 19, 2013 9:54 PM
To: AGL Testimony
Subject: HB 174

Please prevent GMO testing and Agro-Chemical use on Kauai, Hawai'i.

Let's live on a healthy, safe island for our grand children's children.

Mahalo,

Teo Briseño
4183 Waipua St.
Kilauea, Kauai
96754
Teo

nishihara1 - Amanda

From: val loh [vallohfoto@yahoo.com]
Sent: Tuesday, March 19, 2013 9:57 PM
To: CPN Testimony; AGL Testimony; HTHTestimony
Cc: Mary Lacques
Subject: GMO Labeling Bill HB 174, HD2 (HSCR924)

Dear Senators:

Please support HB 174 as it relates to the health and well-being of the people of Hawai'i. As are many of your constituents, I am concerned about the safety and nutritional value of the food I eat. I read food labels every time I go shopping. It would be more than helpful to have GMO food clearly labeled so we, as well as you and your families, can make informed decisions about the ingredients of the food we eat. Ingesting GMO-tainted food because GMO companies have lobbied successfully to keep GMO off labels is NOT ACCEPTABLE.

If people are allowed to know what is in their food and they choose not to buy GMO food, then the companies who try to sell it to us will have to sell a healthier product, abandoning their GMO/food source takeover of our grocery stores and markets.

The organic, healthy food movement is not going away. We, the people, are more aware and educated than before, and demand that our food supply is honest and transparent. This affects all of us, including lawmakers and their own families. Please do the right thing for the people of Hawai'i and pass a law that makes Hawai'i healthier.

With hope and aloha,
Valerie Loh
Honolulu

--- On Tue, 3/19/13, Mary Lacques <hokuokekai50@msn.com> wrote:
Aloha,

please formulate your testimony for HB174, to be heard in the original committees. Mahalo to Senate President Mercado Kim for representing the voice of the people.

Mary

http://www.capitol.hawaii.gov/session2013/hearingnotices/HEARING_AGL-CPN-HTH_03-21-13.

THE SENATE

THE TWENTY-SEVENTH LEGISLATURE

REGULAR SESSION OF 2013

COMMITTEE ON AGRICULTURE
Senator Clarence K. Nishihara, Chair

Senator Ronald D. Kouchi, Vice Chair

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

Senator Rosalyn H. Baker, Chair
Senator Brickwood Galuteria, Vice Chair

COMMITTEE ON HEALTH

Senator Josh Green, Chair
Senator Rosalyn H. Baker, Vice Chair

NOTICE OF HEARING

DATE: Thursday, March 21, 2013
TIME: 9:00am-11:00am
PLACE: Conference Room 229

State Capitol

415 South Beretania Street

A G E N D A

HB 174, HD2

RELATING TO FOOD LABELING.

AGL/CPN/HTH,
WAM

(HSCR924)

Imposes labeling requirements and import restrictions on imported genetically engineered produce. Authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations. Effective July 1, 2012. (HB174 HD2)

Status &
Testimony

Decision Making to follow, if time permits.

Click [here](#) to submit testimony to the Senate Committee on Agriculture.

nishihara1 - Amanda

From: Melinda Carroll [mcaroll@aloha.net]
Sent: Tuesday, March 19, 2013 10:15 PM
To: AGL Testimony
Subject: HB174 Testimony

Aloha and Thank you for reading my testimony.

My name is Melinda Carroll, professional Singer and Songwriter. I have been a resident of Hawai'i for 34 years and currently live in Kula, Maui. My daughter was born in Kapiolani Hospital in Honolulu 28 years ago. Because I love Hawai'i and care about the future of our children, I wanted to share a few facts I've learned about GMOs for those who haven't had the time, and share what mainstream media plays down for the most part.

I've been gathering information and educating myself regarding the companies who promote these unlabelled foods that have been quietly infused into our everyday meals and food products for animals and people, over the past 2 years. Following the news threads on the internet when I can, it's a fact that GMOs are slowly being banned in every major country around the world and for good reason as you'll see below. And yet, they permeate our island's water, food and ocean systems here.

The March in March GMO Protest, has been traveling to each of the Hawaiian Islands this month. Maybe you've seen or heard this on the news. It began in Haleiwa in Oahu, then Kauai, then last weekend in Hilo and Kona on the Big Island. The turn-out has been in the thousands in each location, all peaceful and determined to make our politicians take note. I will be marching alongside Maui farmers, mothers, fathers, children and a wide spectrum of our Maui community members on March 23rd, folks who feel as I, that these companies are poisoning our people, our land and destroying our quality of life and they must be Stopped. At the very least, they must label their products to give folks a choice to use them or not.

A GMO is a genetically modified organism or genetically engineered organism (GEO) whose genetic material has been altered. GMOs are bad for your body, bad for the community, bad for farmers and bad for the environment. Here are just a few reasons why:

The health consequences of eating genetically modified organisms are largely unknown. Food items that contain GMOs are unlabeled in America. Why so sneaky? The European Union has banned GMOs, as have Australia, Japan, the UK, Germany, France, Mexico, China, Russia and two dozen other countries that recognize that a lack of long term studies and testing may be hiding disastrous health defects.

Genetic engineering reduces genetic diversity. When genes are more diverse, they are more robust; this is why a pure bred dog tends to have greater health problems than the dear old mutt.

Once the mutant genes are out of the bag, there is no going back. Genetically modified organisms contaminate existing seeds with their altered material, passing on modified traits to non-target species.

GMOs are not the answer for global food security. Genetically engineered crops have shown no increase in yield and no decrease in pesticide use.

Genetically engineered foods have not been proven to be safe, but the few studies conducted are frightening. The organs of rats who ate genetically modified potatoes <<http://www.organicauthority.com/vegetables/potatoes.html>> showed signs of chronic wasting, and female rates fed a diet of herbicide-resistant soybeans gave birth to stunted and sterile pups.

Big biotech firms have very sketchy track records – these are the same companies that brought us Agent Orange, napalm and heptachlor.

GMOs require massive amounts of pesticides, herbicides and fungicides. These things are poisons, and should not be eaten or allowed to run off into our water supply, but they do. Hawaii land and water systems throughout the islands are still recovering from the effects of long-term chemical use from sugar cane and pineapple. We cannot continue this kind of abuse, especially when there are proven alternative, economically sound, and healthy ways to better utilize our

local farmlands.

Please make labeling of these products mandatory.

Sincerely,

With Warmest Aloha,

Melinda Carroll

nishihara1 - Amanda

From: Laura Margulies [laura@lauramargulies.com]
Sent: Tuesday, March 19, 2013 8:23 PM
To: AGL Testimony
Subject: Pro GMO labeling

To Whom It May Concern,

Please pass the bill to label GMO foods by any means necessary. Please reword House Bill 174 if necessary to have it succeed and pass Federal muster! This is extremely important act is necessary for all of the people of Hawaii to have freedom of choice regarding the foods we eat. Please label GMOs as we do NOT want to eat them.

Thank you,
Laura Margulies

nishihara1 - Amanda

From: Mary Heaney [beanghluine@gmail.com]
Sent: Tuesday, March 19, 2013 10:22 PM
To: AGL Testimony
Subject: GMOs

Please do not allow GMO's to be added to our food without our knowledge. The future consists of the unknown but the quality of our food should not fall in this category.

If GMO's are safe, why worry about labeling? Give me the tools to make the choice of what I consume.

Mahalo,

Mary Heaney

nishihara1 - Amanda

From: Peter Jamtgaard [peter@jamtgaardse.com]
Sent: Tuesday, March 19, 2013 10:17 PM
To: AGL Testimony
Subject: *****SPAM***** Labeling GMO Food

I am opposed to the use of any genetically modified food (here after referred to as GMO).

I have serious concerns regarding the business practice of Monsanto.

I have studied the issue and find this company is not working in the best interest of our people or country.

I do not want to support them in ANY way.

I think the proposed bill should include domestically produces GMO food also.

I do not feel that GMO food is safe for the environment.
(and I have a degree in environmental engineering from Marquette)
I am a licensed professional engineer in the State of Hawaii.

I do not feel there is sufficient research regarding GMO safety for food.

I do not want to eat it. Period.

I have the right to know if the food I eat is GMO.

Labeling gives me my right to chose to not eat it.

Peter Jamtgaard PE, SE
PO Box 11527
Honolulu, HI 96828

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:42 PM
To: AGL Testimony
Cc: maceyj001@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GM Foods Harm Studies.doc

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
James Macey	Individual	Support	Yes

Comments: Honorable Senators of the Agriculture, Consumer Protection and Health Committees, Strongly support HB 174 and recommend passage with TWO AMENDMENTS: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. I strongly support GMO Labeling as I take my own and my children and grandchildren's health very seriously. Attached is a compilation of 72 scientific studies that show harm from GE foods. We all deserve to know what we are eating period no if ands or buts. Mahalo, James W. Macey

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nishihara1 - Amanda

From: James Macey [jwmacey@aol.com]
Sent: Tuesday, March 19, 2013 10:46 PM
To: HTHTestimony; CPN Testimony; AGL Testimony
Subject: TESTIMONY SUPPORTING HB174 - Nutritional Analysis Comparison of GMO Corn versus Non-GMO Corn
Attachments: photo.PNG

TESTIMONY SUPPORTING HB174, HD2 THURSDAY, MARCH 21, ROOM 229, 9:00 AM
Subject: Nutritional Analysis Comparison of GMO Corn versus Non-GMO Corn - Support HB 174

Honorable Senators of the Agriculture, Consumer Protection and Health Committees,

Strongly support HB 174 and recommend passage with TWO AMENDMENTS:

- 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause.
- 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

The attachment shows a nutritional analysis comparison of GMO corn versus non-GMO corn. The difference is staggering but it does not take a rocket scientist to understand that if you continually poison the soil you get poison food but if you fertilize the soil with organic life material like it requires then you get organic life foods that are healthy and nutritious and not poison.

We demand to know what we are eating and want GMO foods labeled!!

Please support HB 174!!

Mahalo,
James W. Macey

nishihara1 - Amanda

From: Garrick Campbell [campbellgarrick@yahoo.com]
Sent: Tuesday, March 19, 2013 10:55 PM
To: AGL Testimony
Subject: Hb174 G Campbell Testimony

To Whom It May Concern,

On behalf of my family, I would like to ask this committee to vote in favor of having genetically modified foods be labeled. We try diligently to review labels of foods we consume, but can never truly know what unnatural ingredient(s) may have been used during the manufacturing process. As we all know, a lot of the details on the packaging is quite confusing already, and a simple sticker or label stating GMO would clarify right away for the consumer, whether or not they are comfortable with eating this food, or not. While I do not pretend to understand all the repercussions that would stem from a vote in favor, I do believe that any person should have the basic right to know what has been done to their foods before it is consumed. Just as it is considered good practice that a doctor reveal to his patient what drug he may inject a person with, it should be expected that a company state what "ingredient" has been injected into a food we are about to eat. Aside from adding preservatives and hormones and such, my understanding is that foods produced before the 1990's were generally considered "natural", and now even before hormones or preservatives are added, this food has already been altered in it's very core, genetically. This food will look the same, smell the same, and even taste the same, but it is not the same and my family, nor I, can tell the difference. It is a process that was done, a modification, and we only ask that it is reported that way, as it was done.

Sincerely,

The Campbell Family

Sent from my iPad

nishihara1 - Amanda

From: Kori Elia [k4h4e4@icloud.com]
Sent: Tuesday, March 19, 2013 10:24 PM
To: AGL Testimony
Subject: HB 174 HD

Hello,

My name is Kori Higa Elia. **I respectfully urge you to Approve HB 174 HD.** I believe that reason and precautionary science will be convincing to the members of your Committee, and that labeling measures will NOT adversely impact our local economy or drive prices up for consumers. I have two small children and two elderly parents. I truly believe that diet has an impact on the poor health that has affected our population. I do not want my children to grow up without knowing information and making better food choices. Genetically modified food, perspectives, chemicals and pesticides in our food needs to be communicated appropriately to the consumers. Hawaii's consumers have a right to know if their food contains genetically modified organisms. Please don't let business get in the way of doing what is right.

Thank you,
Kori H Elia

Sent from my iPhone

Sent from my iPhone

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:47 PM
To: AGL Testimony
Cc: elenamacey@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elena Macey	Individual	Support	Yes

Comments: Honorable Senators of the Agriculture, Consumer Protection and Health Committees, Strongly support HB 174 and recommend passage with TWO AMENDMENTS: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. We deserve to know what we are eating.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:53 PM
To: AGL Testimony
Cc: anthuriumz@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Wynn Hee	Individual	Support	Yes

Comments: UH law students have refuted AG's claims of unconstitutionality. True, a better bill would include labeling of LOCALLY grown produce too, but I understand legislators' desire to "protect" local ag and rainbow papayas, so this law is just a baby step, but it IS a step in the right direction of RIGHT to KNOW. Obviously, thousands of Hawaii residents care what we're eating and WANT TO KNOW. And did you know that at Hawaii Farm Bureau Federation farmers' markets -- KCC, Blaisdell, Mililani, and Kailua -- the farmers are NOT allowed to label their produce NON-GMO? Hawaii Farm Bureau doesn't want to label GMOs, but they won't allow their farmers to label NON-GMO's either? That's ridiculous! HD2 would also allow NON-genetically engineered produce to be labeled. Fear of the YUCK factor is the TRUE REASON Farm Bureau and Monsanto et al. oppose labeling of G.E. products. Example: PINK SLIME, aka Lean Finely Textured Beef scraps, pureed and sterilized with ammonia. On the mainland, when consumers found out, yuck! Nobody wanted to eat it anymore. But there was NO outcry in Hawaii, SPAM capitol of the world. SPAM is just pink pork slime steamed in a can! Most Hawaii consumers couldn't care less about G.E. food -- but I do!

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nishihara1 - Amanda

From: kauaibliss@gmail.com on behalf of Joan Levy [joan@joanlevy.com]
Sent: Wednesday, March 20, 2013 12:13 AM
To: AGL Testimony
Subject: HB 174

Dear Representatives,

It is imperative that we have mandatory GMO labeling on all and any foods which carry GMO products or parts of products.

The only reason this has become such a big issue is because of the fear that consumers will stop buying and using products that contain GMO's.

That in itself is reason enough to have mandatory labeling. We have every right to know what we are putting into our bodies and the bodies of our children.

If companies feel there is no hazard and they choose to continue to use GMO products, that is their choice. But it also needs to be our choice whether or not we choose to use those products.

It is your job to protect and represent us. Not the lobbyists for agribusiness and food manufacturing.

Please help us do the right thing and pass HB 174.

Thank you!

Aloha, Joan Levy
Kapaa resident, Kauai

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(joan@joanlevy.com - best email to use at all times)

JOAN LEVY, MSW, LSW, LCSW, ACSW
BodyMind & Breath Center
POB 160 Kapaa, Kauai, HI 96746 (808) 822-5488

JOAN'S WEBSITES:

Recent Cover Article (Published 1/31/2011): [http://forkauaionline.com/article/Cover/Cover/Joan Levy on Relationship/84240](http://forkauaionline.com/article/Cover/Cover/Joan%20Levy%20on%20Relationship/84240)
Client Testimonial:

<http://internationalwomensday.org/nomination/joan>

PsychoSpiritual Intensives: <<http://www.lauhala.com/joan>>
Fits and Fancies...Along the Evolutionary Path: Joan's web column in "The Kauaian" <
<http://www.kauaistyle.com/life/along-the-evolutionary-path/>>

Blog: <http://www.heartbeatofkauai.com/derailed-communications-getting-back-on-track/>

For Holistic Health Practitioner Info on Kauai:
Kauai Healing Arts Directory: <http://www.kauaihealing.org>
Lightline directory: http://GoKauai.com/garden/health_wellness.html

Hawaii Health Guide: <http://www.hawaiihealthguide.com/>
Inspiration Journal: <http://www.inspirationjournal.com/contact.html>
Holistic Hawaii Directory: <http://www.holistic-hawaii.com>

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:38 PM
To: AGL Testimony
Cc: eebrowni@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Eliza Browning	Individual	Support	Yes
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Comments: I strongly support HB 174. The constitutional issues presented by the bill can be fixed. Furthermore, GMO labeling will allow scientists to study the long-term effects of human consumption of GMO food products. Regardless of whether GMOs are harmful, it is the consumer's right to decide what to put into his or her body. Similar to deciding how much sodium to consume, or what type of farm to purchase a Thanksgiving turkey from, consumers make moral and health related food choices all of the time. Consumers should have the right to decide whether they will support the companies that produce GMO products, and they have the right to know what they are eating. Thank you for your time.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:39 PM
To: AGL Testimony
Cc: michaelbroady@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Broady Jr.	Individual	Support	Yes

Comments: Aloha, my name is Michael Broady Jr., I am a life long resident of O'ahu, a student at Leeward Community College, and a small organic farmer practicing biodiverse permaculture. I do support HB 174 HD 2 as a step towards the consumer's right to know what they are buying, but I ask that you strike all amendments, and pass HB 174 with it's original language. I am aware that it may be unconstitutional to pass this bill as amended to exclude locally grown produce, and I wonder whose idea it was to create that exemption. I would certainly like to know if the locally grown papayas sold at the farmers markets are GMO or not. On Jan 16, 2013, two-thousand people rallied at the capitol demanding GMO Labelind and PLDC Repeal. So far in March 2013, at least five-thousand have marched against the GMO poisoning of the 'aina, on O'ahu, Kaua'i, and Big Island, with marches to come on Maui and Moloka'i. This is not just about GMO. The people want control of their food supply back. It is not possible for life to co-exist with a form of agriculture based on killing things. In the film "Stop Monsanto from Poisoning Hawaii", UH CTAHR's Dr. Hector Valenzuela cites a refereed study which shows that "if we take into account the social cost of fixing the pollution and health aspects from plantation agriculture, plantation ag would not have been a profitable enterprise." The time of industrial monocultures has passed. For the sake of the health of all living things, we depend on you legislators to steer our society towards a new agriculture paradigm by making the products of the failed war-chemical regime distinguishable in all it's soylent forms. Label GMO.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:42 PM
To: AGL Testimony
Cc: foodsovereignty@now@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Testimony HB 174 label GMO food and whole foods. .pages

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mitsuko Hayakawa	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: James Macey [jwmacey@aol.com]
Sent: Tuesday, March 19, 2013 10:36 PM
To: HTHTestimony; CPN Testimony; AGL Testimony
Subject: TESTIMONY SUPPORTING HB174, HD2 THURSDAY, MARCH 21, ROOM 229, 9:00 AM
Attachments: GM Foods Harm Studies.doc

Honorable Senators of the Agriculture, Consumer Protection and Health Committees,

Strongly support HB 174 and recommend passage with TWO AMENDMENTS:

- 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause.
- 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

I strongly support GMO Labeling as I take my own and my children and grandchildren's health very seriously. Attached is a compilation of 72 scientific studies that show harm from GE foods. We all deserve to know what we are eating period no if ands or buts.

Mahalo,

James W. Macey

The Safe Food Foundation is concerned by the large volume of scientific material showing evidence of harm from GM foods.

The papers below relate only to the direct and indirect effects of the consumption of GM food and feed -- ie evidence of (1) GM plant toxicity (this would include all animal feeding, immuntotoxicity, inhalation etc trials) and (2) evidence of potential harm from the indirect effects of GM plants through inseparable or unavoidable production methods (e.g. the effects of added Roundup residues which are unique to Roundup Ready plants or possibly other HT plants). Some papers discuss the survival of DNA from GM plants in the mammal digestive system, since there are obvious health implications.

We do not include papers which show environmental damage, relating to GM plant toxicity to animals in the food web (these may result in environmental harm or increase the evidence of potential human toxicities) and relating to potential harm to the food web from the indirect effects of GM plants through inseparable or unavoidable production methods (this could include the rise in glyphosate resistant weeds that also increase the chance of their toxins contaminating human food supplies).

The papers towards the end of the list are recommended reviews which summarizes earlier published raw data -- and look for cause and effect relationships -- but which do not necessarily report new experimental data.

Papers published in 2011

- (1) Aris, A and Leblanc, S. (2011) "Maternal and fetal exposure to pesticides associated to genetically modified foods in Eastern Townships of Quebec, Canada" *Reproductive Toxicology*, 2011 May; 31(4):528-33. Epub 2011 Feb 18.
- (2) Antoniou, M et al. (2011) "Roundup and birth defects: Is the public being kept in the dark?" *Earth Open Source*.

Papers published prior to 2011

- (1) Agodi, A. et al. (2006) "Detection of genetically modified DNA sequences in milk from The Italian market". *International Journal of Hygiene and Environmental Health*, 209, 81-88.
- (2) Benachour N, Sipahutar H, Moslemi S. et al. "Time- and dose-dependent effects of roundup on human embryonic and placental cells". *Arch Environ Contam Toxicol*. 2007;53:126-133

- (3) Benachour, N. and Seralini, G-E. 2008, "Glyphosate Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells", *Chemical Research in Toxicology*, DOI: 10.1021/tx800218n. Publication Date (Web): December 23, 2008
- (4) Bernstein, I.L., Bernstein, J.A., Miller, M., Tierzieva, S., Bernstein, D.I., Lummus, Z., Selgrade, M.K., Doerfler, D.L. and Seligy, V.L. (1999). "Immune responses in farm workers after exposure to *Bacillus thuringiensis* pesticides", *Environmental Health Perspectives* 107, 575-582
- (5) Chowdhury, E.H., et al (2003) "Detection of corn intrinsic and recombinant DNA fragments and Cry1Ab protein in the gastrointestinal contents of pigs fed genetically modified corn Bt11". *Journal of Animal Science* 81, 2546-2551.
- (6) Cisterna B, Flach F, Vecchio L, Barabino SM, Battistelli S, Martin TE, Malatesta M, Biggiogera M. 2008, "Can a genetically- modified organism-containing diet influence embryo development? A preliminary study on pre-implantation mouse embryos". *Eur J Histochem.* 2008 Oct-Dec; 52(4):263-7.
- (7) Duggan et al., 2003, "Fate of genetically modified maize DNA in the oral cavity and rumen of sheep", *British Journal of Nutrition*, 2003,
- (8) Dutton, A., H. Klein, J. Romeis, and F. Bigler, 2002, "Uptake of Bt-toxin by herbivores feeding on transgenic maize and consequences for the predator *Chrysoperia carnea*," *Ecological Entomology* 27 (2002): 441–7
- (9) Ermakova, I.V. 2006, "Genetically modified soy leads to the decrease of weight and high mortality of rat pups of the first generation. Preliminary studies," *Ecosinform* 1 (2006): 4–9.
- (10) Ermakova, I.V. 2009. "Influence of soy with gene EPSPS CP4 on the physiological state and reproductive functions of rats in the first two generations," *Russian Academy of Natural Sciences, "Modern problems of science and education"* № 5, 2009. UDC: 612.82, 57.02
- (11) Ewen S.W. and Pusztai A., 1999 "Effect of diets containing genetically modified potatoes expressing *Galanthus nivalis* lectin on rat small intestine", *Lancet*, vol. 354, pp. 1353–1354.
- (12) Fares NH, El-Sayed AK. 1998 "Fine structural changes in the ileum of mice fed on delta-endotoxin-treated potatoes and transgenic potatoes". *Nat Toxins.* 6: 219-33.

- (13) Finamore A, Roselli M, Britti S, Monastra G, Ambra R, Turrini A and Mengheri E. (2008). "Intestinal and peripheral immune response to MON810 maize ingestion in weaning and old mice". *J Agric Food Chem*, 16 November 2008
- (14) Fu, T.J. et al. (2002) "Digestibility of food allergens and nonallergenic proteins in simulated gastric fluid and simulated intestinal fluid – A comparative study". *Journal of Agricultural Food Chemistry*, 50, 7154-7160.
- (15) Guerrero, GG. W.M. Russel and L. Moreno-Fierros, 2007: "Analysis of the cellular immune response induced by *Bacillus thuringiensis* Cry1Ac toxins in mice: Effect of the hydrophobic motif from diphtheria toxin". *Molecular Immunology* 44, 1209-1217 (2007)).
- (16) Kilic, A. and M. T. Akay (2008). "A three generation study with genetically modified Bt corn in rats: Biochemical and histopathological investigation". *Food Chem. Toxicol.* 46(3): 1164-1170.
- (17) Kroghsbo S, Madsen C, Poulsen M, Schrøder M, Kvist PH, Taylor M, Gatehouse A, Shu Q, Knudsen I. "Immunotoxicological studies of genetically modified rice expressing PHA-E lectin or Bt toxin in Wistar rats". *Toxicology*. 2008 Mar 12;245(1-2):24-3
- (18) Lutz, B. et al. (2005) "Degradation of Cry1Ab protein from genetically modified maize in the bovine gastrointestinal tract". *Journal of Agricultural Food Chemistry*, Published on Web, 10.1021/jf0492222x, American Chemical Society.
- (19) Malatesta, M., F Perdoni, G Santin, S Battistelli, S Muller, M Biggiogera (2008). "Hepatoma tissue culture (HTC) cells as a model for investigating the effects of low concentrations of herbicide on cell structure and function". *Toxicol In Vitro*. 2008 Sep 18; : 18835430
- (20) Malatesta M, Caporaloni C, Gavaudon S. et al. 2002, "Ultrastructural morphometrical and immunocytochemical analyses of hepatocyte nuclei from mice fed on genetically modified soybean". *Cell Struct Function*. 2002; 27:173-180
- (21) Malatesta M, Biggiogera M, Manuali E. et al. 2003, "Fine structural analyses of pancreatic acinar cell nuclei from mice fed on genetically modified soybean". *Eur J Histochem*. 2003; 47:385-388
- (22) Manuela Malatesta, Federica Boraldi, Giulia Annovi, Beatrice Baldelli, Serafina Battistelli, Marco Biggiogera, Daniela Quaglino. (2008) "A long-term study on female mice fed on a genetically

modified soybean: effects on liver ageing". *Histochem Cell Biol.* 2008 Jul 22; : 18648843

(23) Malatesta, M. et al. (2002b) "Ultrastructural analysis of pancreatic acinar cells from mice fed on genetically modified soybean". *Journal of Anatomy*, 201, 409-446.

(24) Mazza R, Soave M, Morlacchini M, Piva G, Marocco A.(2005) "Assessing the transfer of genetically modified DNA from feed to animal tissues". *Transgenic Res.* 2005 Oct;14(5):775-84.

(25) Netherwood, T. (2004) "Assessing the survival of transgenic plant DNA in the human gastrointestinal tract". *Nature Biotechnology*, 22, 204-209.

(26) Nordgård L , Grønsberg IM, Hegge B, Fenton K, Nielsen KM, Bardocz S, Pusztai A and Traavik T. 2009. An examination of the fate of feed-derived DNA in various tissue samples of actively growing rats, pregnant rats and their foeti. Submitted

(27) Prescott V.E., Campbell P.M., Moore A., Mattes J., Rothenberg M.E., Foster P.S., Higgins T.J. and Hogan S.P. 2005, "Transgenic expression of bean alpha-amylase inhibitor in peas results in altered structure and immunogenicity", *J Agric Food Chem.*, vol 53, pp. 9023–9030, ., 2005

(28) Pryme, IF and Rolf Lembcke, 2003, "In Vivo Studies on Possible Health Consequences of Genetically Modified Food and Feed—with Particular Regard to Ingredients Consisting of Genetically Modified Plant Materials," *Nutrition and Health* 17(2003): 1–8.

(29) Séralini GE, de Vendômois JS, Cellier D, Sultan C, Buiatti M, Gallagher L, Antoniou M, Dronamraju KR. "How Subchronic and Chronic Health Effects can be Neglected for GMOs, Pesticides or Chemicals". *Int J Biol Sci* 2009; 5:438-443.

(30) Seralini GE, Cellier D, Spiroux de Vendomois J. 2007, "New analysis of a rat feeding study with a genetically modified maize reveals signs of hepatorenal toxicity". *Arch Environ Contam Toxicol.* 2007;52:596-602

(31) Sharma R, Alexander TW, John SJ, Forster RJ, McAllister TA. 2004, "Relative stability of transgene DNA fragments from GM rapeseed in mixed ruminal cultures". *Br J Nutr.* 2004 May;91(5):673-81.

- (32) Sharma R, Damgaard D, Alexander TW, Dugan ME, Aalhus JL, Stanford K, McAllister TA. (2006) "Detection of transgenic and endogenous plant DNA in digesta and tissues of sheep and pigs fed Roundup Ready canola meal". *J Agric Food Chem*. 2006 Mar 8;54(5): 1699-709.
- (33) Tayabali AF and Seligy VL. 2000, "Human cell exposure assays of *Bacillus thuringiensis* commercial insecticides: production of *Bacillus cereus*-like cytolytic effects from outgrowth of spores". *Environ Health Perspect* 108: 919-930, (2000).
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**SENATE COMMITTEES ON AGRICULTURE, COMMERCE & CONSUMER
PROTECTION, AND HEALTH**

March 21ST, 2013, 0:00 A.M.

TESTIMONY IN SUPPORT OF HB 174

Aloha Chairs Nishihara, Baker and Green and Members of the Committees,

I write to urge you to pass HB174.

Amend it, if you must, to address concerns about conflicts with federal law or interstate commerce, but please do not use these concerns as an excuse not to act.

The issue is simple: people have a right to know what is in their food. How they choose to act, once the information is available, is up to them. Many, perhaps most, will no doubt continue to eat GMO food – just as people continue to drink alcohol or smoke cigarettes despite the warning labels attached to those products. So by requiring labeling you will not be issuing an edict that “thou shalt not eat GMO,” nor will you kill the GMO industry: it will continue to prosper. But if you choose to ignore the growing groundswell of popular opinion demanding the right to know, you will foster the attitude that is currently too prevalent in our polity - that our elected representatives are overly beholden to big corporate interests. That attitude engenders political cynicism and weakens our democracy. You have an opportunity to speak for the people you represent and I urge you to seize it.

Mahalo,

Anthony Aalto

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:04 PM
To: AGL Testimony
Cc: marybarter@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: labeling all genetically engineered food testimony.pages

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
mary M. Barter	Individual	Support	Yes

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov

Elaine Dunbar
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Lihue, HI 96766
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HB174 Related to Food Labeling - SUPPORT

Aloha Chair and Committee Members,

This is critical and far too long overdue. It is not possible to fathom the message that is being sent by the financially fierce and battling opposition by GMO Corporations, that we are NOT entitled to know what we PURCHASE nor what we CONSUME. The disturbing part about GM foods is we have no information on what specific viral, bacterial, pharmaceutical, animal, insect or human genes are being injected. I hope you are NOT OK with that thought.

I truly sympathize with the Hawaii Cattleman's Council and am grateful for the quality they strive to maintain in their beef products. However, the overall greater consequences to NOT labeling GMO products go far beyond prices. It is the GMO companies that have CREATED this situation for conscientious producers like them. I would hope that the Cattleman's Association could approach this from another angle perhaps through disclaimer educational information in their logos, marketing, truck signs, etc. that their product contains a significantly diluted percentage. People will understand, especially if it is presented the same way their testimony is here. And people will still purchase from them because it is far better than what the supermarkets offer.

I understand where TIMES and BIG SAVE are coming from with concerns, but do not sympathize with them because their reasons are too far into the mass marketing profit. In fact I used to be Art Director for TIMES and I understand the (fixable) Labeling quandaries that will eventually arise but hey, we are not put on this earth to serve as profit generators for TIMES or BIG SAVE.

GMO corporations have turned Hawaii into a floating pharmaceutical petri dish and they haven't even started their engines. No blow over to other states so Hawaii is perfect, besides no other countries want anything to do with them anymore since they have heeded the facts. And the facts are compelling and at the same time GMO Corporations' methods are deceitful. Hawaii government is behind the eight ball on allowing them to remain here. But all we ask for is the right to know as mandated by John F. Kennedy's Consumer Protection Act.

The Label does not say good or bad. It just means we have a right to know what it is. We are the purchasers; let us decide fairly. If they have to resort to deception to push their products: HOUSTON, we have a problem.

Aloha, my name is Mark Wood and I am an employee of Monsanto Company. I do have a Ph.D. in Crop Science and I have worked in the technology and biotechnology industry for almost 20 years. However, I am not here to address you today as a scientist, I am here today as a farmer, as a husband and ultimately as a father. **I am here today to oppose HB174**, not based on science, but rather emotion. It appears that sensationalism and the continued villinization of the GMO crops and companies are the ultimate target to an issue that has already been addressed.

As a farmer, why would I knowingly hurt the land that provides me a bountiful harvest? As a husband, why would I endanger my wife and the mother of my kids? I ask each and every one of you in this room to think about my next question. Why as a parent, if you were like me and know you would lay down your life before that of your child, would I ever knowingly harm my children by feeding them something not safe? Because it is safe and there is nothing to label. As a scientist I have opposed labeling and the continual rhetoric about food safety for sometime. Not once in the last 20 years has anyone ever been proven to have become sick from consuming a GMO product. Why is it that the opposition has to continually go to minute studies conducted with questionable research methods to prove they are unsafe? I ask you to look around the room today and look at the support we have provided opposing this bill. Everyone in here is someone's husband, wife, parent, sister, brother and so on. Do you really think they would put their family in danger as it has been stated so many times by the opposition?

Before you decide to vote on this issue, consider this question. Why would you add additional labeling for something that already has an option to be labeled? If you feel that your food should be labeled, buy Organic. The rigors associated with Organic farming and production and sales into the market place are time consuming, cumbersome and not for the faint of heart. But in the end, you have a labeled product from the USDA certifying there is nothing harmful in your food. The same guarantee provided by the USDA on the food you buy in the grocery stores now that are not labeled organic. The label that is so requested here today has already been provided. Use that label to your benefit and to our tax payer dollars. If you would like me to address the science behind the safety of GMO's I will, but if you will consider my testimony as a voter, and devoted husband and father that would be much more appreciated.

Mahalo for the opportunity to speak to you today.

Testimony before the Committees on Agriculture, Commerce & Consumer Protection, and Health
Relating to Food Labeling
HB 174 HD2

March 21, 2013

Committee Chairpersons Nishihara, Baker, and Green:

Aloha. My name is Rick Klemm and I am testifying as a private citizen in **opposition** to bill 174 HD2.

This bill requires a state-level marketing label to be affixed to biotech farm products similar to the USDA organic label, which simply indicates the farming method used to grow certain crops or livestock. As a marketing label it tells the consumer nothing about potential food safety or environmental concerns associated with a farm product; simply how it was farmed. In fact, it doesn't even guarantee that the product to which the label is affixed was actually grown organically. The label could be and sometimes is affixed to disguise more cheaply produced conventional products. More money in the pocket. Since our state government is billions of dollars in the hole, it buggers the mind why we would want to fritter away precious dollars on a useless label. And agency testimony I have read from previous hearings indicates they don't have the expertise or the kala to conduct such a labeling program – even if it had some utility.

So who's pushing this bill in the first place? Well, this takes some real down to earth thinking. Unscrupulous organic marketers here and across the nation have for decades disparaged conventional farm products and now biotech ones. Why? Because organic foods have nothing unique to offer consumers except higher prices and slightly elevated risks of biological contamination. It's all about the money. They are aided and abetted by anti-corporate and anti-humanist activists and their local apostles, who also like the money that their fear mongering generates, as well as the destruction of future global food production.

Food labels serve two essential purposes: to provide us with nutritional information (# of calories, protein, fat, and carbohydrate content, etc.) and to warn us (e.g., contains peanuts or food manufactured in a facility where nuts are processed). **Federal regulations already require the mandatory labeling of biotech foods when they present an increased health risk or a significant difference in nutritional value compared with equivalent conventional/organic ones.**

Adding a state-marketing label with no useful information or other useful purpose would simply create confusion for suppliers and consumers alike – and increase the food bill for us all.

Please trash this bill because we don't need another useless label and we can prevent the further waste of paper.

Mahalo nui loa for the opportunity to testify on this measure.

My name is Diana Montgomery-Brock and I work for Syngenta, Hawaii. I am testifying against the requirement to label foods as containing GMO's. This passage of this bill would have three negative effects. One, it would increase the costs of goods imported to Hawaii as employees would need to be hired and paid to label each individual package that contains genetically modified ingredients. Secondly, it would send a message out to the seed companies, who provide employment to 25% of all the agricultural workers in Hawaii, that their business is not welcome here. And last but not least, we would be the first State to implement this law which is based on the emotions of fear, misinformation, and words produced by people who really have no idea of what they are talking about.

I ask you, the lawmakers of this State to base your decision on Science – not emotion.

Mahalo,

Diana Montgomery-Brock

Senate Committee Members,

I am writing in support of HB 174, to request that you amend the bill (1) to correct its constitutional defects, (2) to clarify its purpose, and (3) to create a private cause of action to enforce required labeling of genetically engineered foods (“GMOs”).

As I have noted in the Honolulu Star-Advertiser, and as has been stated in the Richardson Students for Labeling memorandum, HB 174, as written, is unconstitutional. By only requiring the labeling of imported produce, it violates the Dormant Commerce Clause implied by the U.S. Constitution, Article I, § 8. This defect can be cured by requiring that locally-produced GMOs also be labeled as such. I respectfully request that the committee(s) amend the bill accordingly.

Additionally, I request that the bill be amended to make clear that it is not only intended to satisfy consumer curiosity about GMO products, but also to prevent consumer confusion over whether products are GMO. As it stands, consumers have no way of telling whether or not the foods they are purchasing contain GMOs. While foods labeled “organic” can reasonably be expected to be non-GMO, there are numerous foodstuffs that do not meet the standards for being labeled “organic” but are still non-GMO. In the absence of labeling, there is no way for a consumer to identify and avoid, or seek out, non-GMO food that is not “organic” and therefore more affordable. Moreover, should a consumer wish to seek out GMO foods, there is currently no way for them to do so other than avoiding “organic” foods, which may not ensure that the food is GMO. Lastly, the vast majority of consumers are unaware of the degree of GMO infiltration into our food systems and are likely purchasing and consuming GMO foods that they believe to be non-GMO. Requiring a GMO label will directly remedy these problems in a way that is narrowly tailored to a real, and constitutionally significant state interest: the avoidance of consumer confusion.

Finally, to avoid increased enforcement costs for the state, and increased production costs for farmers, I request that the bill be amended to create a private cause of action for consumers who purchase non-labeled GMO foods. The language for creating this cause of action can be found in Part II of HB 174, authorizing a non-GMO label for foods, and can easily be imported into Part I, requiring GMO labeling. This will be a way for the State to empower the people of Hawai‘i to protect themselves from non-labeled GMO foods, while also saving the State the costs of policing and enforcement.

This bill will be a landmark piece of legislation that will mark Hawai‘i, yet again, as a leader in the nation in empowering its people and protecting its environment. All we are asking for is recognition of our right to know, and to be given the tools to put that knowledge to use.

Thank you very much for agreeing to hear this bill. I humbly urge to you amend it as described above and pass it so that it may eventually make its way to the Senate floor, and on to becoming state law.

Mahalo nui loa,

Christiaan Mitchell
J.D. Candidate, 2014
University of Hawai‘i at Mānoa
William S. Richardson School of Law

Good Morning Chairs, Vice Chairs and committee members,

My name is Lori Nakamura-Higa, and I support HB174, HD2 with amendments.

I don't know how many ways we can say it, but we are not asking for anything new that's been done since the beginning of GMOs. We are way overdue to catch up and it should start here.

Whole Foods Market now with over 340 locations and our local Down to Earth grocer will require GMO labeling in their stores. So now is the time to support GMO labeling to include all foods with a zero percent threshold on GMOs just like China. If this can be done for 1.35 billion consumers in just China alone, it should be done for us as well.

The GMO lobbyist say that they want to feed the hungry, well it's been 20 years, what's the hold up and what has that got to do with me as a consumer wanting to know what's in the foods I feed my family, especially my child? It's got absolutely nothing to do with it.

And I don't understand when they proclaim how many meals that have been served. I'm sure they can quantify how many meals they've served in the 62 other countries with billions of consumers that get their GMOs labeled. Same foods, it's just they get a label and we don't. This is where I don't understand all the fuss they are making over this, because their GMOs are labeled for consumers like us all over the world. All this is is a geographic issue when it shouldn't be. I'm sure that the 62 other countries governing bodies didn't even listen to all the "shiby" that some of you are taking into consideration by these GMO lobbyist. They didn't listen, why are you listening when this is purely a consumer issue?

In fact, they shouldn't even be having a say over this issue, because it's not about them and their science. It's about hearing us citizens as consumers and hearing the two sides of what the consumers have to say. I'll be glad to hear other consumers testify today as to why they don't want their foods labeled. Then decide based on what the majority of the consumers want, not what the GMO companies want. It shouldn't be the GMO companies prevailing over what us as consumers buy. This is absolutely nonsensical.

Nobody should care about how many meals they've served, nobody should care who supports them. All of that doesn't matter. **WE ARE THE CONSUMERS, NOT THEM.**

So please help this make sense and amend this gutted bill to exclude the requirement of Non-GMO labeling which is also nonsensical, and include the labeling of all GMOs just like Whole Foods Market, Down to Earth and the 62 other countries worldwide that require GMO labeling. Stop listening to the "shiby" and please start listening to your constituents.

Thank you very much for listening.

Mahalo,
Lori Nakamura-Higa

Also included is a good read by Gary Hirshberg to the New York Times, and the list of 62 countries with GMO labeling:

<http://justlabelit.org/letter-to-the-editor/>

Letter to the Editor: Labeling GE Foods

By: Just Label It

Posted on March 16, 2013

By Gary Hirshberg (Chairman, Just Label It)

I appreciate the Times' encouraging citizens who wish to buy foods free of genetically engineered ingredients to buy Certified Organic foods. And while it would be completely self-serving for me as an organic foods producer to rest on that conclusion, in fact it misses the point that all citizens have the right to know what's in all of our foods.

In concluding that there is no reason to label GE ingredients because they have not been proven to pose safety concerns, the Times fell into the same trap that has paralyzed the national debate over labeling GE foods since they were introduced in 1996.

Safety is not the only reason to label. When the FDA determines that labeling is required for additives or processes, it is not because they have been found unsafe. The FDA's most important food statute, the Federal Food Drug and Cosmetic Act, establishes that the consumer has a right to know when something is added to food that changes it in ways a consumer would likely not recognize. If an ingredient poses a food safety hazard, we don't label its presence, we take it out of our food.

The FDA did not require labeling of irradiated foods because they were hazardous. Rather they found that the PROCESS of irradiation caused concern to consumers. The same determination was made with Orange Juice from Concentrate, Country of Origin, Wild vs. Farmed, and many labels.

Yet while the FDA has mandated labeling for these processes, they have held firmly to the view that, even though GE crops are patented, they are not materially different from conventional counterparts. This is despite the fact that 62 other nations around the world including all of the EU, Russia and China and even Syria have required labeling when approving these crops.

So the question is not about safety. It is about what is material to the consumer. And a lot has changed in 20 years. Here is what is material today.

First, particularly because of their dominance in soy and corn, over 70% of the processed foods we eat contain genetically engineered material. The data is clear that the vast majority of Americans do not know that.

Independent polls show that 92% of Americans want to know if our foods contain genetically engineered ingredients, with no meaningful difference between men or women, republicans, democrats or independents. And while the reasons vary from religious concerns to the simple desire to have the same rights granted to 3 billion citizens around the world, I see three primary reasons to bring US policy into line with the rest of the world.

First, these crops have been patented because they add bacterial genes, proteins, and gene fragments never before seen in foods. While it is true that we don't yet know, and we probably won't know for a generation, about the health impacts of today's first-generation-GE crops, there is very strong and growing concern over the lack of independent testing by scientists not funded nor influenced by the patent holders. Our government's approval of these crops has been based almost exclusively on studies conducted or funded by the chemical companies who own these patented crops to prove that GE food is "substantially equivalent" to its non-GE counterpart. In fact, last week, the Russian National Genetic Safety Association called for independent public scientific research. It would be fine to rely on the patent holders claims, but they have been repeatedly shown to be false.

When GE corn was introduced with an insecticide built into its DNA, the patent holders said the insecticide would not survive more than a few seconds in the human GI tract, and that it would be broken down in saliva. However, a study published two years ago revealed that the insecticide was detected in the umbilical-cord blood of pregnant women.

Several National Academy of Sciences studies have affirmed that genetically engineered crops have the potential to introduce new toxins or allergens into our food and environment. Yet unlike the strict safety evaluations for approval of new drugs, there are no mandatory human clinical trials of genetically engineered crops, no tests for carcinogenicity or harm to fetuses, no long-term testing for neurological health risks, no requirement for long-term testing on animals, and limited assessment of the potential to trigger new food allergies.

Because GMOs are not labeled in the U.S., they might be causing acute or chronic effects, but scientists would have a very hard time recognizing the linkages between GE food intake and unexplained problems.

The second argument for labeling that is subject of serious debate in the Ag research community is the explosive increase in herbicide use because of the introduction of these crops. This is because the primary genes that have been introduced into GE crops enable increased insecticide or herbicide resistance. Despite assurances to Congress and regulators over the last two decades that crops engineered to be herbicide resistant would lead to less chemical usage, a peer-reviewed paper published last summer by Washington State University professor Dr. Charles Benbrook showed that the three major GE crops in the U.S. – corn, soybeans, and cotton – have increased overall herbicide use by more than 527 million pounds between 1996 – 2011, compared to what it likely would have been in the absence of GE crops. In 1996, the year GE crops were introduced, about 14 MM pounds of glyphosate, the active ingredient in Roundup herbicides, were sprayed on the three major GE crops, corn, cotton, and soybeans, accounting for about 4% of total pesticide use on these crops. In 2012, nearly 300 MM pounds were sprayed, a remarkable three-quarters of total pesticide use on these three crops.

Such a grossly excessive level of reliance on a *single* pesticide is profoundly unsustainable, and is why glyphosate-resistant weeds are spreading across America's farmland too fast to accurately track, placing farmers in a costly jam.

The U.S. Geological Survey has reported that glyphosate is now a common component of the air and rain in the Midwest during spring and summer, with levels rising in many aquatic ecosystems. New studies are raising serious safety concerns about this level of glyphosate usage.

But it gets worse. At least 23 species of weeds are now resistant to glyphosate. Called “superweeds,” they are emerging at an alarming rate, and are present in 50-75 million acres where GE soy, corn, and cotton crops grow in 26 states. Several chemical companies are responding by designing GE seeds that tolerate multiple herbicides.

To combat weeds that have developed resistance to Roundup (glyphosate), Dow is seeking approval of GE crops that are resistant to an older, high-risk phenoxy herbicide known as 2,4-D. Other companies are working fast to gain approvals for another, even more dangerous phenoxy herbicide, dicamba. Many university weed scientists are speaking out against the dangerous notion that the best way to combat resistant weeds is to spray more herbicides on them – especially herbicides with a proven, negative environmental and human health track record.

Because these chemicals were used previously, weeds resistant to them are already widespread. In the US, there are already eight important weeds resistant to 2,4-D. And 28 species worldwide are resistant to 2,4-D and/or dicamba. So this strategy is like pouring gasoline on a fire to put it out. By 2019, it could cause enormous increases in herbicide use, including a many-fold increase in the pounds of 2,4-D currently applied to the American corn crop.

Many more GE crops are in the approval pipeline. And some of them may very well turn out to offer yield or nutritional benefits, like soybeans with higher levels of heart-healthy omega 3 fatty acids. But for now, while the technology is so young and there is apparently so much to learn, consumers need to have the same rights held by citizens around the world, to choose whether or not to buy these foods and indirectly support this cycle of increased overall chemical usage.

Just Label It is not arguing for the elimination or cessation of genetic plant engineering. We are merely arguing that it deserves the same consideration as irradiation or many other processes where labeling is mandated.

The FDA can label. The vast majority of consumers want them to label.

In short, this is more than a fight for federal labeling. It is a question of whether our government is of, for and by the people, or of, for and by a handful of chemical companies.

List of 62 countries that require GMO labeling:

Below is a full list of countries that require labeling (courtesy of The Center for Food Safety) via JustLabelIt.org:

- | | | |
|-------------------------|-----------------|--------------------|
| 1. Australia | 23. Iceland | 45. Russia |
| 2. Austria | 24. India | 46. Saudi Arabia |
| 3. Belgium | 25. Indonesia | 47. Senegal |
| 4. Bolivia | 26. Ireland | 48. Slovakia |
| 5. Bosnia & Herzegovina | 27. Italy | 49. Slovenia |
| 6. Brazil | 28. Japan | 50. South Africa |
| 7. Bulgaria | 29. Jordan | 51. South Korea |
| 8. Cameroon | 30. Kenya | 52. Spain |
| 9. China | 31. Latvia | 53. Sri Lanka |
| 10. Croatia | 32. Lithuania | 54. Sweden |
| 11. Cyprus | 33. Luxembourg | 55. Switzerland |
| 12. Czech Republic | 34. Malaysia | 56. Taiwan |
| 13. Denmark | 35. Mali | 57. Thailand |
| 14. Ecuador | 36. Malta | 58. Tunisia |
| 15. El Salvador | 37. Mauritius | 59. Turkey |
| 16. Estonia | 38. Netherlands | 60. Ukraine |
| 17. Ethiopia | 39. New Zealand | 61. United Kingdom |
| 18. Finland | 40. Norway | 62. Vietnam |
| 19. France | 41. Peru | |
| 20. Germany | 42. Poland | |
| 21. Greece | 43. Portugal | |
| 22. Hungary | 44. Romania | |

Photo of GMO labeling on a product from one of the 62 countries listed above:



nishihara1 - Amanda

From: kauaibliss@gmail.com on behalf of Joan Levy [joan@joanlevy.com]
Sent: Wednesday, March 20, 2013 12:13 AM
To: AGL Testimony
Subject: HB 174

Dear Representatives,

It is imperative that we have mandatory GMO labeling on all and any foods which carry GMO products or parts of products.

The only reason this has become such a big issue is because of the fear that consumers will stop buying and using products that contain GMO's.

That in itself is reason enough to have mandatory labeling. We have every right to know what we are putting into our bodies and the bodies of our children.

If companies feel there is no hazard and they choose to continue to use GMO products, that is their choice. But it also needs to be our choice whether or not we choose to use those products.

It is your job to protect and represent us. Not the lobbyists for agribusiness and food manufacturing.

Please help us do the right thing and pass HB 174.

Thank you!

Aloha, Joan Levy
Kapaa resident, Kauai

--

Blog: <http://www.heartbeatofkauai.com/derailed-communications-getting-back-on-track/>

nishihara1 - Amanda

From: Fred Dente [koikoi1@hawaii.rr.com]
Sent: Wednesday, March 20, 2013 12:41 AM
To: AGL Testimony
Subject: HB 174

Hawai'i Senators,

I support GMO labeling and HB174. Please do all you can to get this bill passed. GMO companies are poisoning our land, water, reefs and air here on Kaua'i. I demand to know which products contain GMO's. It's my right as a human being. Thank You.

Very Sincerely,

Fred Dente P.O. Box 974 Kapa'a, HI 96746 808-651-2815

nishihara1 - Amanda

From: Marga Silveira [margasilveira@gmail.com]
Sent: Wednesday, March 20, 2013 1:01 AM
To: AGL Testimony; HTHTestimony; CPN Testimony
Subject: THE SENATE,THE TWENTY-SEVENTH LEGISLATURE,,REGULAR SESSION OF 2013 // RELATING TO FOOD LABELING

Importance: High

Dear Sirs,

In regards to the hearing below, I would like to post my testimony:

- Consumers have a right to know whether the food they are eating is produced using genetic modification techniques
- GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.)
- There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern)
- I am requesting that the bill be amended to include labeling of Hawaii produce that is GMO

Sincerley,

Margarete S. Birmingham

THE SENATE

THE TWENTY-SEVENTH LEGISLATURE

REGULAR SESSION OF 2013

COMMITTEE ON AGRICULTURE

Senator Clarence K. Nishihara, Chair

Senator Ronald D. Kouchi, Vice Chair

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

Senator Rosalyn H. Baker, Chair

Senator Brickwood Galuteria, Vice Chair

COMMITTEE ON HEALTH

Senator Josh Green, Chair

Senator Rosalyn H. Baker, Vice Chair

NOTICE OF HEARING

DATE: Thursday, March 21, 2013

TIME: 9:00am-11:00am

PLACE: Conference Room 229

State Capitol

A G E N D A

HB 174, HD2

RELATING TO FOOD LABELING.

AGL/CPN/HTH,
WAM

(HSCR924)

Imposes labeling requirements and import restrictions on imported genetically engineered produce. Authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations. Effective July 1, 2112. (HB174 HD2)

Status & Testimony

Decision Making to follow, if time permits.

Click [here](#) to submit testimony to the Senate Committee on Agriculture.

Testimony may be submitted up to 24 hours prior to the start of the hearing.

FOR AMENDED NOTICES: Measures that have been deleted are stricken through and measures that have been added are underscored. If a measure is both underscored and stricken through, that measure has been deleted from the agenda.

If you require auxiliary aids or services to participate in the public hearing process (i.e. ASL or foreign language interpreter, or wheelchair accessibility), please contact the committee clerk at least 24 hours prior to the hearing so that arrangements can be made.

FOR FURTHER INFORMATION, PLEASE CALL THE COMMITTEE CLERK AT (808)586-6824.

Senator Rosalyn H. Baker

Senator Clarence K. Nishihara

Chair

Chair

Senator Josh Green

Chair



Drops of Infinite Hope

Dr. Margarete S. Birmingham

(808) 429-3064

(808) 457-1910

margasilveira@gmail.com

<http://www.dropsofinfinitehope.com/>

"The greatness of a nation and its moral progress can be judged by the way its animals are treated."

- Mahatma Gandhi

"Never doubt that a small group of thoughtfully committed citizens can change the world; indeed, it's the only thing that ever has."

- Margaret Mead

nishihara1 - Amanda

From: Mariko Davidson [marikodavidson@gmail.com]
Sent: Wednesday, March 20, 2013 4:00 AM
To: AGL Testimony
Subject: In support of HB174 HD2

I support the intent of HB174 HD2 to label GMO foods as part of consumers' right to know.

Aloha,

Mariko Davidson
Kailua, Oahu

nishihara1 - Amanda

From: PAMELA BURRELL [pamelaburrell@me.com]
Sent: Wednesday, March 20, 2013 4:28 AM
To: AGL Testimony
Subject: SB 174

Aloha,

I am contacting you in regards to the bill requiring labeling of GMO.. I am in support of such a measure.

I care what What My family eats .. Just like salt, and all other ingredients are labeled for health reasons or allergies ..so should GMO be labeled. It can be that simple.

Hawaii has a grand opportunity to take a stand and start a trend in the nation.

Thank you for your hard work and consideration.

Regards,

Pamela Burrell
Kilauea, HI 96754

nishihara1 - Amanda

From: Lorie G [whalesong@zoho.com]
Sent: Wednesday, March 20, 2013 4:48 AM
To: AGL Testimony
Subject: Yes on HB 174

Categories: Red Category

I whole heartedly support the passage of HB 174.

As Americans, we have the right to know if we are eating food that contains genetically modified ingredients.

Making informed decisions is our right and responsibility.

Our families need to know that the food we are eating is safe.

Chemically engineered foods create a serious health risk.

In 2012 both Senator Akaka and the late Senator Inouye voted in favor of an amendment to the Senate Farm Bill reaffirming the existing authority that states have to pursue their own labeling of GE food laws.

Please support HB 174.

**Thank you,
Lorie Goodman**

nishihara1 - Amanda

From: Patty Thurston [pattythurston@gmail.com]
Sent: Wednesday, March 20, 2013 4:56 AM
To: AGL Testimony
Subject: GMO labels

Step up and be one of the first to accomplish what other states cannot do. Hawaii deserves to be treated special.
Of course you should know what you are buying in the stores.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:58 AM
To: AGL Testimony
Cc: jpappas60@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jan Pappas	Individual	Support	Yes

Comments: Dear Senators, Why the secrecy? We simply want to know what is in the food we are eating. Hawaiian GMO papayas are labeled for Japanese consumers. Can we not follow the same steps to label GMO foods for Hawaii's people? It's not that hard. If necessary, start by requiring labels on one GMO food crop (corn? soybeans? Hawaiian papaya?), then expand the program incrementally. The GMO "right to know" movement is growing rapidly: - Democrat, Republican or independent: over 80% of each favor GMO labeling ("Majority want more labels on food", <http://thehill.com/opinion/columnists/mark-mellman/222129-majority-want-more-labels-on-food>) - Major businesses are starting to take notice and adapt to consumer requests ("Whole Foods to Label GMOs", <http://www.foodrevolution.org/blog/whole-foods-gmos/>) - In January, India joined 50 other countries that require labels on GMO foods; U.S. markets for GMO crops and products are shrinking (<http://www.sustainablebusiness.com/index.cfm/go/news.display/id/23822>) - We in Hawaii have—session after legislative session—demonstrated our desire to label GMO foods, and we have a chance to significantly affect the momentum in the U.S. on this "right-to-know" issue (<http://www.civilbeat.com/voices/2013/03/14/18590-dear-legislature-from-your-former-colleague-gary-hooser/>) Please, listen to the testimony for this bill, consider what it means to have a government "of the people", and support HB174. Thank you very much for your consideration. Sincerely, Jan Pappas Aiea, HI 96701 808-383-1988

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:08 AM
To: AGL Testimony
Cc: jessicamitchell51@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jessica Mitchell	Individual	Support	Yes

Comments: Aloha Senators. If for some reason you don't like the over 200 links to scientific evidence that GMO's are having health and environmental impacts then you cannot IGNORE my right as a mother to know and choose what I am feeding my family. The GMO issue is confusing and I deserve the RIGHT TO KNOW what is in the food I am purchasing. Please support this bill!! MAHALO for taking the time to consider this testimony.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:52 AM
To: AGL Testimony
Cc: 420isdank@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
angela starr	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:41 AM
To: AGL Testimony
Cc: matthewyoshida@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Matthew Yoshida	Student at the William S Richardson School of Law	Support	Yes
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Comments: Please allow the people of Hawaii to decide for ourselves whether or not to buy GMO products. Fix the bill so that it does not discriminate between local and out of state companies, and if you are further concerned that the federal government may preempt the law, allow our judicial system to decide the issue, as it is charged to do. Be mindful that our country's Tenth Amendment gives us broad power to determine our own laws. "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:56 AM
To: AGL Testimony
Cc: tim.stevens@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tim Stevens	Individual	Oppose	Yes

Comments: This bill not only hurts all farmers, but it will also drive up cost for the consumer with no added benefits. It doesnt make sense!!

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nishihara1 - Amanda

From: Jeremy Hillstrom [jhillstrom@hotmail.com]
Sent: Wednesday, March 20, 2013 7:05 AM
To: AGL Testimony
Subject: HB 174

Aloha Senators,

Mahalo for choosing to hear HB 174. Please support the passage of GMO Labeling and HB 174. The people have a clear right to know what they are eating. Obviously only a nefarious agenda would strive to hide that information.

And on another level, which is even more important, this is about much more significant issues. It is about our democracy and who you, our elected officials are actually representing. These are times when the challenges are truly large, and we clearly recognize and empathize with the pressures that each of you are under continuously.

These are times when all of us are being severely tested to see if we have the courage to stand up for the deepest Truth that we know in our hearts. What do we make more important than the well being of our people and the land that we call our home? And why would we choose to make anything more important than those values?? If we knew that this was our last day on Earth, what would we choose??? What will you choose??

When each one of us finds the courage to actually listen to, and act upon that place in our heart that recognizes Truth, a much better world for EVERYONE will emerge!! There are no special interest groups when Right Choices are made and Truth prevails. Right choices benefit everyone!!

We believe that a better world is rapidly approaching and that it's emergence is assured. We merely get to decide, through our choices, how painful that birth will be.

Of course in some circles these perspectives are considered naive. But they are riding on a rapidly rising tide of growing awareness everywhere. It will not be turned aside. It's time to catch that wave!!

Please support GMO Labeling by taking this one small step that is the passage of HB 174. The courage of that choice will support thousands of your people, rather than merely the greedy few, and that leadership will inspire your colleagues, your people, all of Hawaii, and far beyond.

You are facing a wonderful opportunity to truly make a difference for so many. It is a very valuable gift you are being offered in these times if you will but choose to receive it. You have the opportunity to show up and, not only receive that gift, but give an even greater gift to so many; to catalyze the extraordinary changes being energized in these times.

Not everyone is given the opportunity you have before you now. May we all be blessed with the Wisdom to know what is right, and the courage to do what is right.

Jeremy Hillstrom
P.O. Box 108
Anahola, HI 96703

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:13 AM
To: AGL Testimony
Cc: tanegg@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mario Gaggero	Individual	Oppose	Yes

Comments: Please don't cave to the fear campaign about GMO food being unhealthy or different than non GMO food. If we pass this non-sense bill what is next? GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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nishihara1 - Amanda

From: vanessa kight [kauai-flygirl@hotmail.com]
Sent: Wednesday, March 20, 2013 7:30 AM
To: AGL Testimony
Subject: If we can't stop it..then label it!

To whom this may concern,

I was brought up being proud of my beautiful island of Kauai. Lately I am ashamed that we gave away land for GMO testing, I fear for my family, for my people that are living here. I just landed yesterday (was abroad in Europe) and I couldn't help but to cry while passing those poisonous fields..oh my poor beautiful Kauai, what will become of you! I don't think we are strong enough to get rid of them (I won't stop fighting though) but we should at least be able to use our rights of FREEDOM OF CHOICE to be able to protect ourselves let alone have a good feeling while eating. In Europe GMO has been banned for years, one can feel safe while shopping for a healthy meal for themselves and for their families. I felt guilty shopping yesterday knowing I'll be poisoning myself and my loved ones since I have no clue what has GMO. I do stay away from the companies that are affiliated with Monsanto. My question to you is would you feed your child, parents, spouse poison? Wouldn't you want to have the choice to decide to feed them poison or healthy products? America is all about freedom, the right to bear arms to protect ourselves. If we can send millions of troops to war to protect us than why can't we protect ourselves as well? Please.. Label it!!

With many thanks,
Vanessa Kight

Aloha☺

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:35 AM
To: AGL Testimony
Cc: wayti2000@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
SHEERA LAFORGA	Individual	Oppose	Yes

Comments:

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nishihara1 - Amanda

From: kaji [kaji@mauigateway.com]
Sent: Wednesday, March 20, 2013 7:41 AM
To: AGL Testimony
Subject: GMO

Dear Sirs,

Stop the madness, our food is the most important thing for our survival as a species. You can't take it and manipulate it for profit and expect us not to have major repercussions. This is unbelievable and it is the responsibility of our AG lawmakers, to protect the people. These GMO corporations have changed and manipulated our food and then put it out for sale on the market, without ever testing it. How can this be? What about peoples health and well being? I AM a 40 year resident of Maui and I AM disgusted that the people we elect to protect and serve us, have abandon the people. In this day and age, people are coming together and we will fire or fail to reelect people who do not serve the well being of our health and communities. These corporations have endless money to pay off our elected officials so they look the other way. I have heard in the media, some local folks saying, wheres the proof that it makes people sick? Well, the results may not be seen for many years, but already there are hundreds of thousands of people with IBS (irritable bowel syndrome) which is the irritation of the bowels, that did not exist in the huge numbers that there are today. I guarantee you this is true. Let's send a message to these Frankenfood, unconciouse people, that the wonderful people of Hawaii, do care about these islands, their people and the future generations as well as our ocean who will be sickened and and then the only people that will profit, besides the GMO people are the Big Pharma People, who will try to fix the diseases they have perpetrated on mankind and already rule the world. Please stand up for all of us, for yourself, your children and their families. Thank you sirs. I am sending you a link to Peru who resisted these evil companies. <http://www.occupymonsanto360.org/2012/03/10/peru-passes-monumental-ten-year-ban-on-genetically-engineered-foods/> Please care about the people, it is in your hands and there is no turning back. No amount of money, will ever take the place of being Pono and looking at the future. There are ethical ways of growing food organically, that keep bugs away and make people healthy, not manipulating everyones food for profit. Make Hawaii a GMO free place. Mahalo!!

Regards,
Jackie Cummings

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:49 AM
To: AGL Testimony
Cc: phil.lansman@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Philip Lansman	Individual	Oppose	Yes

Comments: I strongly disagree moving the bill forward. I do not support the labeling of GMO products. Please do not pass this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:52 AM
To: AGL Testimony
Cc: tiffanytchoub@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tiffany tchouboukjian	Individual	Comments Only	Yes

Comments: Noone has ever died or had their health adversely affected at all by GM foods and it can not be told apart from normal conventional crops at all, so it should not be REQUIRED for labeling. The same can NOT be said for organic foods. Death from ecoli and salmonella outbreaks were all traced back to bad composting methods by organic farmers! That is a cause for concern, not GM products that are already HEAVILY regulated. If niche markets want to put NON GMO or GMO on their label they are able to do so and should incur the cost themselves. We should not FORCE all taxpayers to pay for it.

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nishihara1 - Amanda

From: swingkat@hawaii.rr.com
Sent: Wednesday, March 20, 2013 7:54 AM
To: AGL Testimony
Subject: Support for labelling GMO products

Categories: Red Category

Despite the controversy over whether or not GMO products are harmful (as I believe they are), US citizens have the RIGHT to know what we are eating. This shouldn't even be an issue. Please pass this bill.

--

Kathleen Roth

nishihara1 - Amanda

From: Keone Kealoha [keone@malamakauai.org]
Sent: Wednesday, March 20, 2013 4:03 AM
To: AGL Testimony
Subject: Support HB174

Categories: Red Category

Aloha Committee Members,

I submit this testimony in
Support of HB174.

Being from Kauai, I have already contacted Sen Kouchi to represent my voice of support on
this bill. I hope you will do the same.

Mahalo,
Keone Kealoha

nishihara1 - Amanda

From: Andrew Denny [ahdenny@gmail.com]
Sent: Wednesday, March 20, 2013 7:57 AM
To: AGL Testimony
Subject: HB174

Aloha Senators,

Thank you for hearing HB174. This bill is very important to the health of our families and the State of Hawaii.

I recognize that the new labeling will cause additional costs on food distributors. Their employees have families and nobody wants them to suffer undue hardships. However, as a former Kraft Foods VP pointed out in NYTimes piece (see below), the food industry does always have consumers' best interests in mind.

Requiring GMO labeling on foods is one step toward improving the health of kama`ina and visitors alike. Mahalo for your attention to this bill and your continued service to our communities.

NYTimes piece on food industry: <http://mobile.nytimes.com/2013/03/17/opinion/sunday/how-to-force-ethics-on-the-food-industry.xml>

Aloha,

Andrew Denny
1213 Kaiama Pl.
Honolulu, HI 96825

Sent from my Verizon Wireless 4G LTE Smartphone

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:13 AM
To: AGL Testimony
Cc: scottprange@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Prange	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: Elias Hayes [toothpick72@gmail.com]
Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Subject: HB 174 in support

Aloha senators of the consumer protection, health and agriculture committees.

I am in full support in passing gmo labeling, as a concerned citizen I would like to know what I am eating.

GMO's are a fairly new technology right? How could companies justify putting this food in to our market without decent research? Research including having eating trials longer than 90 days and making sure that its labeled. tell me this, if there is major issue regarding my health due to eating GM food how am I to know who to trace it back to if the food isent labeled? Frankly not labeling this new technology is completely irresponsible, and if these companies are so sure about there GMO's than why not have them labeled? Don't deny us as consumers the right to make choices about what we eat. We have given this right to 30+ without issue, why not America the supposed land of the free? If companies arnt going to do proper research atleast let we as consumers do it ourselves.

Sincerely

Elias Hayes

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Cc: patrick.k.rich@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Patrick Keoni Rich	Individual	Oppose	Yes

Comments: Aloha, I am against HB 174 the labeling of GMO's. The benefits and safety of biotech products speak for themselves through all the studies that have been proven through numerous unbiased research. To date there has been no evidence to prove that by eating products produced through biotechnology will create health risks to the consumer. There is no need to label something if it has no significant difference. Thank you for your time and attention to this matter. Mahalo, Patrick Keoni Rich

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nishihara1 - Amanda

From: Forest Shomer [ziraat@olympus.net]
Sent: Wednesday, March 20, 2013 7:55 AM
To: AGL Testimony
Subject: support for HB 174 and GMO labeling

Categories: Red Category

Aloha Senate Agriculture Committee Members,

This is a note in support of HB 174 and GMO labeling. In poll after poll, petition after petition, the public has overwhelmingly preferred to be informed of the presence of GMO ingredients in its food. The nation has long since agreed to label all ingredients of all foods right down to the smallest percent of spices, preservatives and the like. The public appreciates this even to the extent of choosing food at Chinese restaurants that say "no MSG." There is no validity to the argument that it will be too expensive to add words such as "contains GMO ingredients" to a label at the time that the labels are printed.

There is no reason to prevent foods that can honestly be labeled "contains NO GMO ingredients" from doing so. This is simply about consumer choice. Let the purchaser decide, based on the presentation of complete and honest information.

The overwhelming impression one gets, is that a part of the food industry has something to hide, something it doesn't want the buyer to know about the product. That's not acceptable. It's not accepted in around 50 other countries in the world today whose societies are similar to ours in the way that food is produced and marketed. Do you accept the idea that the United States is inferior to those countries, that our citizens are not entitled to the same quality of life and freedom to choose the quality of the most basic thing in life: our food?

I don't accept that notion, and have worked steadily for the past 40 years in the agricultural sector as a producer, marketer, and small-business owner, in support of truth in labeling, a citizen right we one over 40 years ago. I say: LET THE CONSUMER DECIDE on the basis of complete disclosure.

Thank you, sincerely,

Forest Shomer
ziraat@olympus.net

PO Box 301
Kapaa, HI 96746

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:25 AM
To: AGL Testimony
Cc: tyone@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tyler Y	Individual	Oppose	Yes

Comments:

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From: Hesh Goldstein [heshgoldstein@gmail.com]
Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: HB 174

IN FAVOR

Despite being kicked out of over 20 countries, Monsanto says GMOs are good.

Despite GMOs being inundated with enormous toxic pesticides like Roundup Ready and Agent Orange, Monsanto says GMOs are good.

Despite test rats developing multiple cancer tumors from ingesting GMOs, Monsanto says GMOs are good.

Despite hundreds of poor farmers in India committing suicide because they have to buy new seeds every years due to the GMO seeds being "terminator" seeds, Monsanto says GMOs are good.

Then there's Monsanto's humanitarian efforts: their former employees are funneled to high positions with the FDA, USDA, and US Dept of Ag.

If GMOs are as good as they say, why don't they put their money where their mouth is and demand labeling? Imagine going to Foodland, Times, or Safeway and seeing signs on the stores saying: "EVERYDAY SPECIALS ON GMOs!"

People will be lining up in droves to but them. How in the world can we deprive the people of this?

People can buy a food knowing the calorie content, the fat content, the sodium content, the sugar content, etc., but are being deprived of knowing if it's GMO. If we know they were GMOs we would buy them and stockpile them.

So what if people die off from eating heavily pesticided foods? That gives Monsanto the opportunity of opening the first Soylent Green factory. What could be heart-warming than neighbor eating neighbor?

Hesh Goldstein, MSNutri
"Health Talk" Moderator
K-108 Radio
Honolulu
(808) 258-1177

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony
Cc: mfreeman5@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Margery Freeman	Individual	Comments Only	Yes

Comments: All important additives or changes to our food should be labeled. Pass this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:56 AM
To: AGL Testimony
Cc: Sira.12@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kealoha Kalama	Individual	Support	Yes

Comments: Aloha Senate and to whom else this testimony may concern. My testimony is in support for HB174. I am filled with excitement for the future because as a community we will witness tomorrow just how much heart is in this senate. The community's heart is a growing one, a strong beating one and every chess piece that is put in our way will be lovingly absorbed. Our land is our life, my life is my breath and this is my foundation. To be mis-directed directed out of this heavenly place straight into a wasteland is a crime. A crime being carried out by phony food-mislabeled as food My Hawaii is joined at breath and we will work together to bring down the old dis-functioning system and build a new one. Where trolls and lobbyist and money-power-hungry men are in a zoo eating whats left of their own making. We are ready to peacefully protest for nothing less than righteousness to be perpetuated here fourth. This Chess game of Oppressors vs the people is a game that I myself am closing up. My eyes are open and I see clearly. We are all people, all one and very much able to work together to remove this old foundation built on control and possession and replace it with a new foundation. Union and love is where we must start, back to the begging of heart.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:52 AM
To: AGL Testimony
Cc: denise.leann.modglin@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Denise Modglin	Individual	Oppose	Yes

Comments: Please consider the negative ramifications of requiring labeling on genetically modified products. There is absolutely no scientific evidence that proves that genetically modified products are unsafe, or even cause ill effects. GMO companies are required to submit scientific proof of the safety of their products, while anti-GMO activists are allowed to spew opinion without supporting scientific fact. Please do not be swayed by the opinions of people who do not have the education or understanding needed to comprehend the necessity of GMO crops. GMO crops have reduced pesticide use, water use, and land use significantly over the years. The need to feed the world in the coming years requires the use of science and technology to increase crop yields. This is what GMO companies are achieving.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:51 AM
To: AGL Testimony
Cc: gerald.m.dill.jr@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Oppose HB174I.docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gerry Dill	Individual	Oppose	Yes

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:50 AM
To: AGL Testimony
Cc: mbeaulieu@myway.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marc Beaulieu	Individual	Oppose	Yes

Comments: I strongly oppose this measure.

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nishihara1 - Amanda

From: A Kane [akamaikane@live.com]
Sent: Wednesday, March 20, 2013 8:48 AM
To: AGL Testimony
Cc: AGRtestimony
Subject: GMO threatens sustainability worldwide

Gmo food has the very real potential to destroy the worlds agriculture and create widespread starvation. Labeling is necessary in order to generate any kind of statistics regarding the devastating effect on humans and livestock. GMO plant DNA also has the very real potential to irreparably destroy ALL plant DNA through the spread of GMO pollen. These risks are not worth any imaginary gains which are claimed in the lies of big agriculture corporations which are only concerned with short term profits. Long term pains for short term gains. Labeling is only the beginning and without labeling valid statistics are impossible to collect. Strong legislation is necessary in order to protect the lives of all living things in the animal and plant kingdoms. This threatens to cause more devastation to life on this planet than global nuclear war. For the sake of your childrens childrens children, wake up and do the right thing. Included for your education is an article from www.corpwatch.com. Please read carefully, and try to include some more authoritative science and knowledge in your agriculture committees.

The Case Against Agricultural Biotechnology

by Miguel A. Altieri, contained in a briefing packet that was sent to ministers of the Sacramento Ministerial June 10th, 2003

The deployment of transgenic crops is occurring at a rapid pace, reaching about 44.5 million hectares in 2000. Although commercial cultivation is mostly confined to USA, Argentina, Canada, and China, biotechnology proponents argue that expansion of such crops to the Third World is essential to feed the poor in the Third World, reduce environmental degradation, and promote sustainable agriculture. Such promises do not match reality.

Biotechnology is a technology under corporate control, protected by patents and IPR, and thus contrary to farmers' millenary traditions of saving and exchanging seeds.

Hunger is linked to poverty, lack of access to land, and maldistribution of food. Biotechnology exacerbates inequalities underlying the causes of hunger.

Transgenic crops pose a range of potential environmental risks that threaten the sustainability of small farming systems. The ecological effects of engineered crops are not limited to pest resistance and creation of new weeds and pollution of landraces. Transgenic crops can produce environmental toxins that move through the food chain, and also may end up in the soil and water affecting invertebrates, and probably ecological processes such as nutrient cycling. Moreover, large-scale landscape homogenisation with transgenic crops will exacerbate the ecological vulnerability already associated with monoculture agriculture (Altieri 2000a).

There is widespread consensus that yields have not increased with transgenic crops. In the case of Bt corn the economic advantages are not clear, given that the occurrence of insect pests is unpredictable.

Savings in insecticide use are minimal when examined on a per hectare basis, and insignificant when compared to savings derived from Integrated Pest Management strategies. Herbicide use is up, locking farmers to broad spectrum herbicides that narrow weed management options and condemn farmers to monoculture.

There are agroecological alternatives to biotechnology that result in technologies that are cheap, accessible, risk averting, productive in marginal environments, environment and health enhancing, and culturally and socially acceptable.

Policies must be put in place to promote the upscaling of successful agroecological interventions, that are already reaching about nine million small farmers at one-tenth the cost incurred by official international agricultural subventions.

It is urgent that international donors recognise the gravity of the problem, take a chance on new institutional arrangements led by NGOs and farmers' organisations, and provide funding for a grassroots-based alternative agricultural development approach in the Third World.

Biotechnology companies often claim that genetically modified organisms (GMOs) - specifically genetically altered seeds - are essential scientific breakthroughs needed to feed the world and reduce poverty in developing countries. Such claims promoted by the biotech industry-created consortium, the 'Council for Biotechnology Information' with a \$250 million budget, uses the issue of hunger in the developing world to justify GM crops without explaining how GM crops will actually mitigate hunger. Malthusian biotechnologists need first to explain why GM crops will feed hungry Indians when 36.6 million excess tons of grain stocks in 'godowns' (silos) of India will not. The world today produces more food per inhabitant than ever before. Enough food is available to provide 4.3 pounds for every person every day: 2.5 pounds of grain, beans, and nuts, about a pound of meat, milk, and eggs, and another of fruits and vegetables (Lapp et al.. 1998). Simply raising food output may be the last thing that is needed.

In 1999 enough grain was produced globally to feed a population of eight billion people (six billion inhabit the planet in 2000), had it been evenly distributed or not fed to animals. Seven out of ten pounds of grain are fed to animals in the USA. Countries such as Brazil, Paraguay, Thailand, and Indonesia devote thousands of acres of agricultural land to produce soybeans and manioc for export to feed cattle in Europe. By channelling one-third of the grain produced world-wide to needy people, hunger would cease instantly (Lapp et al.. 1998). Hunger is also compounded by globalisation, especially when developing countries embrace free trade policies (lowering tariffs and allowing goods from industrialised countries to flow in) advocated by international lending agencies. The experience of Haiti, one of the world's poorest countries, is illuminating. In 1986 Haiti imported just 7,000 tons of rice, the majority consumed was grown in the island. After opening its economy to the world, cheaper rice immediately flooded in from the USA where the rice industry is subsidised. By 1996 Haiti imported 196,000 tons of foreign rice at the cost of US\$100 million a year. Haitian rice production became negligible once dependence on foreign rice was complete, and the cost of rice rose, leaving large numbers of poor people at the whim of rising world grain prices. Hunger increased (Aristide 2000).

The real causes of hunger are poverty, inequality, and lack of access to food and land. Too many people are too poor (about two billion survive on less than a dollar a day) to buy the food that is available but often poorly distributed, or lack the land and resources to grow it themselves (Lapp et al.. 1998). Because the true root cause of hunger is inequality, any method of boosting food production that deepens inequality is bound to fail to reduce hunger.

By matching myth with reality this paper challenges the false promises made by the genetic engineering industry that it will move agriculture away from a dependence on chemical inputs, increase productivity, decrease input costs, help reduce environmental problems, and feed the hungry (Office of Technology Assessment 1992). By challenging the myths of biotechnology we can expose genetic engineering for what it really is: another 'technological fix' or 'magic bullet' aimed at circumventing the environmental problems of agriculture (which themselves are the outcome of an earlier round of technological fix) without questioning the flawed assumptions that gave rise to the problems in the first place (Hindmarsh 1991). Biotechnology develops single-gene solutions for problems that derive from ecologically unstable monoculture systems designed on industrial models of efficiency. Such a unilateral and reductionist approach was already proven ecologically unsound for pesticides, also promoted by the same biotech firms, with a reductionist approach using one chemical-one pest as opposed to the one gene-one pest approach now promoted by biotechnology.

Modern industrial agriculture, today epitomised by biotechnology, is founded on philosophical premises that are fundamentally flawed, and these premises are precisely the ones that need to be exposed and criticised in order to advance towards a truly sustainable agriculture. This is particularly relevant in the case of biotechnology, where the alliance of reductionist science and multinational monopolistic industry will take agriculture further down a misguided route, jointly perceiving agricultural problems as genetic deficiencies of organisms, and treating nature as a commodity while in the process making farmers more dependent on an agribusiness sector that increasingly concentrates power over the food system.

Will biotechnology benefit poor farmers?

Most biotechnological innovations available today bypass poor farmers: first because these farmers cannot afford the seeds that are protected by patents owned by biotechnology corporations, and second, because this modern technology is not adapted to the marginal environments where resource-poor farmers live. An estimated 850 million people live on land threatened by desertification. Another 500 million reside on terrain that is too steep to cultivate. Because of these and other limitations, about two billion people have been untouched by modern agricultural science. Moreover, most of the rural poor live in the tropics, a region that will be most vulnerable to the effects of global warming (Conway 1997).

Biotechnology researchers pledge to counter problems associated with food production in such marginal areas by developing GM crops with traits considered desirable for small farmers, such as enhanced competitiveness against weeds, and drought tolerance. However, agricultural biotechnology innovations (i.e. Bt crops and herbicide resistant crops) are profit-driven rather than need-driven. The real thrust of the genetic engineering industry is not to make agriculture more productive but to generate profits (Busch et al., 1990). In the case of herbicide tolerance the goal is to win greater herbicide market-share for a proprietary product, and to boost seed sales at the cost of damaging the usefulness of a key pest management product (Bt) that is relied on as an alternative to insecticides.

Even if biotechnology contributes to increased harvests poverty will not necessarily decline. Many poor farmers in developing countries do not have access to cash, credit, technical assistance, or markets. The so-called Green Revolution of the 1950s and 1960s bypassed such farmers because planting the new high-yield crops, and maintaining them through the use of pesticides and fertilisers, was too costly for impoverished landowners. Data show that in both Asia and Latin America wealthy farmers with larger and better-endowed lands profited from the Green Revolution, whereas farmers with fewer resources often gained little (Lapp et al. 1998). The 'Gene Revolution' might only end up repeating the mistakes of its predecessor. Genetically modified seeds are under corporate control and patent protection, consequently they are very expensive. Since many developing countries still lack the institutional infrastructure and low-interest credit necessary to deliver these new seeds to poor farmers, biotechnology will only exacerbate marginalisation.

Moreover, poor farmers do not fit into the profitable marketing niche of private corporations, whose focus is on biotechnological innovations for the commercial-agricultural sectors of industrial and developing nations. The private sector often ignores important crops such as cassava, which is a staple for 500 million people worldwide. The few impoverished landowners who will have access to biotechnology will become dangerously dependent on the annual purchase of genetically modified seeds. These farmers will have to abide by onerous intellectual property agreements not to plant seeds yielded from a harvest of bioengineered plants. In the USA farmers adopting transgenic soybeans must sign an agreement with Monsanto. If they sow transgenic soybeans the next year, the penalty is about \$3,000 per acre and, depending on the acreage, could cost farmers their farms, their livelihood. By controlling germplasm from seed to sale, and by forcing farmers to pay inflated prices for seed-chemical packages, companies are determined to extract the most profit from their investment (Krimsky and Wrubel 1996).

What about Golden Rice?

Scientists who support biotechnology and disagree with the assertion that most biotechnology research is profit-rather than need-driven, use the newly-developed but not yet commercialised Golden Rice to hide behind a rhetoric of humanitarianism. This experimental rice is rich in beta-carotene, an important nutrient for millions of children, especially in Asia, suffering from Vitamin A deficiency that can lead to blindness.

The suggestion that genetically altered rice is the proper way to address the condition of two million children at risk of Vitamin A deficiency-induced blindness reveals a tremendous naiveté about the real causes of vitamin and micronutrient malnutrition. Vitamin A deficiency cannot really be characterised as a problem, but rather as a symptom. It warns us of broader inadequacies associated with both poverty, and with agricultural change from diverse cropping systems toward rice monoculture promoted by the Green Revolution. People do not exhibit

Vitamin A deficiency because rice contains too little Vitamin A, or beta-carotene, but rather because their diet has been reduced to rice and almost nothing else. These people suffer from many other dietary illnesses that cannot be addressed by beta-carotene, but which could be addressed, together with Vitamin A deficiency, by a more varied diet. Golden Rice must be seen as a one-dimensional attempt to fix a problem created by the Green Revolution: the problem of diminished crop and dietary diversity. A magic-bullet solution, which places beta-carotene into rice while leaving poverty, poor diets, and extensive monoculture intact, is unlikely to make any durable contribution to well-being. When leafy plants are re-introduced into the diet of poor people they provide both needed beta-carotene and other missing vitamins and micro-nutrients, providing a meaningful addition to peasant nutrition and subsistence. There is an abundance of wild and cultivated green leafy vegetables rich in vitamins and nutrients within and on the periphery of paddy rice fields, most of which are eliminated when farmers adopt monocultures and associated herbicides (Greenland 1997).

Rice biotechnologists have no understanding of the deeply-rooted cultural traditions that determine food preferences among Asian people, especially the social and even religious significance of white rice. It is highly unlikely that the Golden Rice will replace white rice, which for millennia has played a variety of nutritional, culinary, and ceremonial roles. No doubt Golden Rice will clash with traditions associated with white rice, as green or blue French fries would clash with Western food preferences in the USA or Europe. But even if Golden Rice made it into the bowls of poor Asians, there is no guarantee that it would benefit poor people who don't eat fat-rich or oil-rich foods. Beta-carotene is fat-soluble and its uptake in the intestine depends upon fat or oil in the diet. People suffering protein-related malnutrition and lacking dietary fats and oils cannot store Vitamin A well in the liver, nor transport it to the different body tissues where the vitamin is needed. Moreover, given the low concentration of beta-carotene in the miracle rice (about 1.5 mg/gr of dry weight), people would have to eat more than one kilogram of rice per day to obtain a recommended daily allowance dose of Vitamin A.

Does biotechnology increase yields?

A major argument advanced by biotechnology proponents is that transgenic crops will significantly boost crop yields. Data from the USA do not support such claims. Yields have not increased with transgenic crops, rather, soybean yields tend to be lower (about six per cent less) when compared with conventional varieties, cotton yields have remained unchanged, and maize yields are higher only under sporadic conditions of high pest-pressure. No biotechnological breakthrough of resource-poor farmers has been recorded, and there is no GM crop on the horizon that is expected to outperform local varieties under the heterogeneous environmental conditions facing small farmers. Although data from the developing world is scarce, a US Department of Agriculture Economic Research Service report (USDA 1999) which analysed data collected in 1997 and 1998 for 12 and 18 USA region/crop combinations is very conclusive. The crops surveyed were Bt corn and cotton, and herbicide tolerant (HT) corn, cotton, and soybeans, and their non-engineered counterparts.

Some scientists and policy makers suggest that large investments through public-private partnerships can help developing countries acquire the indigenous scientific and institutional capacity to shape biotechnology to suit the needs and circumstances of small farmers. But once again, corporate intellectual property rights to genes and gene-cloning technology might play spoiler. For instance, in Brazil its national research institute (EMBRAPA) must negotiate licence agreements with nine different companies before a virus-resistant papaya developed with researchers at Cornell University can be released to poor farmers (Persley and Lantin 2000).

Environmental impacts of agricultural biotechnology

Biotechnology is being pursued in order to patch up problems (e.g. pesticide resistance, pollution, soil degradation, etc.) caused by previous agrochemical technologies promoted by the same companies now leading the biorevolution. Transgenic crops developed for pest control closely follow the paradigm of using a single control mechanism (a pesticide) that has proven to fail over and over again with insects, pathogens, and weeds (National Research Council 1996). The touted 'one gene - one pest' approach will also be easily overcome by pests that are continuously adapting to new situations and evolving detoxification mechanisms (Robinson

1996).

Agricultural systems developed with transgenic crops favour monocultures characterised by dangerously high levels of genetic homogeneity, leading to higher vulnerability of agricultural systems to biotic and abiotic stresses (Robinson 1996). By promoting monocultures it will also undermine ecological methods of farming, such as rotation and polycultures, thus exacerbating the problems of conventional agriculture (Altieri 2000a). As the new bioengineered seeds replace and contaminate the old traditional varieties and their wild relatives, genetic erosion will accelerate in the Third World (Fowler and Mooney 1990). Thus the push for uniformity will not only destroy the diversity of genetic resources, but will also disrupt the biological complexity that underlies the sustainability of indigenous farming systems (Altieri 1996).

Impacts of herbicide resistant crops

Weed resistance

The continuous use of herbicides such as bromoxynil and glyphosate (also known as Roundup) which herbicide resistant crops tolerate can lead to problems (Goldberg 1992). It is well documented that when a single herbicide is used repeatedly on a crop, the chances of herbicide resistance developing in weed populations greatly increases (Holt et al. 1993). About 216 cases of pesticide resistance have now been reported in one or more herbicide chemical families (Holt and Le Baron 1990). Triazine herbicides have the most resistant weed species (about 60).

The problem is that given industry pressures to increase herbicide sales, acreages treated with these broad spectrum herbicides will expand, exacerbating the resistance problem. Although glyphosate is considered less prone to causing herbicide resistance in weeds, over time the increased use of the herbicide is bound to result in resistance.

Herbicides kill more than weeds

Companies affirm that bromoxynil and glyphosate, when properly applied, degrade rapidly in the soil, do not accumulate in groundwater, have no effects on non-target organisms, and leave no residue in foods. There is, however, evidence that bromoxynil causes birth defects in laboratory animals, is toxic to fish, and may cause cancer in humans (Goldberg 1992). Because bromoxynil is absorbed dermally, and because it causes birth defects in rodents, it is likely to pose hazards to farmers and farm workers. Similarly, glyphosate has been reported to be toxic to some non-target species in the soil: both to beneficial predators such as spiders, mites, carabid and coccinellid beetles, and to detritivores such as earthworms, as well as to aquatic organisms, including fish (Paoletti and Pimentel 1996). Questions about food safety also arise as this herbicide suffers little metabolic degradation in plants and is known to accumulate in fruits and tubers, and more than 37 million pounds of this herbicide are now used annually in the USA alone. Moreover, research documents that glyphosate seems to act in a similar fashion to antibiotics by altering soil biology in a yet unknown way and thus exerting effects such as :

Reducing the ability of soybeans and clover to fix nitrogen;

Rendering bean plants more vulnerable to disease;

Reducing the growth of beneficial soil-dwelling mycorrhizal fungi, which are key for helping plants extract phosphorous from the soil.

Most poor farmers rely on soil biological processes and organic matter for soil fertility, thus altering microbial populations with herbicides can make them more dependent on fertilisers, an expensive outcome.

Creation of 'superweeds' and contamination of landraces

Although there is some concern that transgenic crops themselves might become weeds, a major ecological risk is that large scale releases of transgenic crops may promote transfer of transgenes from crops to other plants,

which then could become weeds but also unleash unpredictable ecological effects (Darmancy 1994). Transgenes that confer significant biological advantage may transform wild/weedy plants into new or worse weeds (Rissler and Mellon 1996). The biological process of concern here is introgression (hybridisation among distinct plant species), a major problem in biodiverse farming systems within centres of origin where the possibilities of a transgenic variety encounter with sexually compatible wild relatives is very high. Evidence indicates that such genetic exchanges among wild, weed and crop plants already occur. The fact that interspecific hybridisation and introgression are common to species such as sunflower, maize, sorghum, oilseed rape, rice, wheat, and potatoes, provides a basis for expecting gene flow between transgenic crops and wild relatives to create new herbicide resistant weeds (Lutman 1999). Transgenic crops can also allow transgenes to escape into free-living populations of landraces. The invasion of transgenes into native varieties could provoke a host of negative effects such as shrinking the agricultural gene pool; clearly any threat to local varieties represents a threat to the food security of local farmers (Snow and Moran 1997).

Environmental risks of insect resistant crops (Bt crops)

Resistance

According to the biotechnology industry, the promise of transgenic crops inserted with Bt genes is that they will replace synthetic insecticides now used to control insect pests. Most crops have a diversity of insect pests, and therefore insecticides will still have to be applied to control non-Lepidoptera pests, which are not susceptible to the Bt toxin expressed by the crop (Gould 1994). But biotechnology has a limited role in pest management, even for Lepidoptera. In the USA the economic advantages of growing transgenic corn are not assured because population densities of the European corn borer are unpredictable.

On the other hand, several Lepidoptera species have been reported developing resistance to Bt toxin in both field and laboratory tests, suggesting that major resistance problems are likely to develop in Bt crops which through the continuous expression of the toxin create a strong selection pressure (Tabashnik 1994). No serious entomologist questions whether resistance will develop or not. The question is how fast?

In order to delay the inevitable development of insects resistant to Bt crops, bioengineers are preparing resistance management plans, using patchworks of transgenics and non-transgenics (called refuges) to delay the evolution of resistance by providing susceptible insects for mating with resistant insects. Although refuges should cover at least 30 per cent of the crop area, Monsanto's new plan calls for only 20 per cent refuges, even when insecticides are to be used. Moreover, the plan offers no details whether the refuges must be planted alongside the transgenic crops, or at some distance away, where studies suggest they would be less effective (Mallet and Porter 1992). In addition to refuges requiring the difficult goal of regional co-ordination between farmers, it is unrealistic to expect most small and medium sized farmers to devote up to 30-40 per cent of their crop area to refuges, especially if crops in these areas are to sustain heavy pest damage.

The farmers who face the greatest risk from the development of insect resistance to Bt are neighbouring organic farmers who grow corn and soybeans without agrochemicals. Once resistance appears in insect populations, organic farmers will not be able to use Bt in its microbial insecticide form to control Lepidoptera pests moving in from adjacent neighbouring transgenic fields; thus losing a valuable biorational tool for pest control.

Effects on non-target species

By keeping pest populations at extremely low levels, Bt crops could potentially starve natural enemies, as predators and parasitic wasps that feed on pests need a small amount of prey to survive in the agroecosystem. Among the natural enemies that live exclusively on insects which the transgenic crops are designed to kill (Lepidoptera), egg and larval parasitoids would be most affected because they are totally dependent on live hosts for development and survival, whereas some predators could theoretically thrive on dead or dying prey (Schuler et al. 1999).

Natural enemies could also be affected directly through inter-trophic level effects of the toxin. The potential of

Bt toxins moving through arthropod food chains poses serious implications for natural biocontrol in agricultural fields. Recent evidence shows that the Bt toxin can affect beneficial insect predators that feed on insect pests present on Bt crops (Hilbeck et al., 1999). Studies in Switzerland show that mean total mortality of predacious lacewing larvae (Chrysopidae) raised on Bt-fed prey was 62 per cent compared to 37 per cent when raised on Bt-free prey. These Bt-prey fed to Chrysopidae also exhibited prolonged development time throughout their immature life stage (Hilbeck et al., 1999).

These findings are of concern to small farmers who rely for insect pest control on the rich complex of predators and parasites associated with their mixed cropping systems (Altieri 1994). Inter-trophic level effects of the Bt toxin raise serious concerns about the potential of the disruption of natural pest control. Polyphagous predators that move within and between mixed crops cultivars, will encounter Bt-containing non-target prey throughout the crop season (Hilbeck et al., 1999). Disrupted biocontrol mechanisms may result in increased crop losses due to pests, or to the increased use of pesticides by farmers, with consequent health and environmental hazards. It is also now known that windblown pollen from Bt crops found on natural vegetation surrounding transgenic fields can kill non-target insects. A Cornell study (Losey et al., 1999) showed that corn pollen containing Bt toxin can drift several metres downwind and deposit itself on milkweed foliage with potentially deleterious effects on Monarch butterfly populations. These findings open a whole new dimension on the unexpected impacts of transgenic crops on non-target organisms which play key roles in the ecosystem, such as providing alternative food for natural enemies that depend on field margins for their continual existence in agroecosystems (Altieri 1994). But environmental effects are not limited to the interface of crops and insects. Bt toxins can be incorporated into the soil through leaf materials when farmers incorporate transgenic crop residues after harvest. Toxins may persist for 2-3 months, resisting degradation by binding to clay and humic acid soil particles while maintaining toxin activity (Palm et al., 1996). Such active Bt toxins that end up and accumulate in the soil and water from transgenic leaf litter may have negative impacts on soil and aquatic invertebrates and nutrient cycling processes (Donnegan and Seidler 1999).

The fact that Bt retains its insecticidal properties, and is protected against microbial degradation by being bound to soil particles and persisting in various soils for at least 234 days, is of serious concern for poor farmers who cannot purchase expensive chemical fertilisers. These farmers instead rely on local residues, organic matter, and soil micro-organisms for soil fertility (key invertebrate, fungal, or bacterial species), which can be negatively affected by the soil-bound toxin (Saxena et al., 1999).

More sustainable alternatives to biotechnology do exist

What is agroecology?

A growing number of farmers, NGOs, and sustainable agriculture advocates propose that instead of the biotechnology capital- and input-intensive approach, developing countries should favour an agroecological model that emphasises biodiversity, nutrient recycling, synergy among crops, animals, soils, and other biological components, as well as regeneration and conservation of resources (Altieri 1996).

Agroecological approaches rely on indigenous farming knowledge, and selected low-input modern technologies, to diversify production. The approach incorporates biological principles and local resources into the management of farming systems, thus providing for an environmentally sound and affordable way for smallholders to intensify production in marginal areas (Altieri et al. 2000b).

There are proven agroecological alternatives to biotechnology that result in technologies that are cheap, accessible, risk averting, productive in marginal environments, environment and health enhancing, and culturally and socially acceptable. A recent analysis of 208 agroecologically based projects and/or initiatives documented clear increases in food production over some 29 million hectares, with nearly 9 million households benefiting from increased food diversity and security. Promoted sustainable agriculture practices led to 50-100 per cent increases in per hectare food production (about 1.71 tonnes per year per household) in rain-fed areas, typical of small farmers living in marginal environments; that is an area of about 3.58 million hectares, cultivated by about 4.42 million farmers (Pretty and Hine 2000). Such yield enhancements are a true breakthrough for achieving food security among resource-poor farmers isolated from mainstream agricultural

institutions (Uphoff and Altieri 1999). Some of the examples considered in this study include (Pretty 1995):
Brazil: 200,000 farmers using green manures/cover crops doubled maize and wheat yields;
Guatemala-Honduras: 45,000 farmers using the legume *Mucuna* as a cover for soil conservation systems tripled maize yields in hillsides;
Mexico: 100,000 small organic coffee producers increased production by half;
South-east Asia: 100,000 small rice farmers involved in IPM farmers' schools substantially increased yields while eliminating pesticides;
Kenya: 200,000 farmers using legume-based agroforestry and organic inputs doubled maize yields.
These examples are but a small sample of the thousands of successful experiences of sustainable agriculture implemented at the local level. Data show that over time agroecological systems exhibit more stable levels of total production per unit area than high-input systems; produce economically favourable rates of return; provide a return to labour and other inputs sufficient for a livelihood acceptable to small farmers and their families; and ensure soil protection and conservation and enhance agrobiodiversity. More importantly, these experiences, which emphasise farmer-to-farmer research and grassroots extension approaches, represent countless demonstrations of talent, creativity, and scientific capability in rural communities. They point to the fact that human resource development is the cornerstone of any strategy aimed at increasing options for rural people and especially resource-poor farmers.

Conclusions

The ecological effects of engineered crops are not limited to pest resistance and creation of new weeds or virus strains. Transgenic crops can produce environmental toxins that move through the food chain, and also may end up in the soil and water affecting invertebrates and probably ecological processes such as nutrient cycling. Gene flow from transgenic crops to landraces can compromise the genetic integrity of centres of origin. Moreover, large-scale landscape homogenisation with transgenic crops will exacerbate the ecological vulnerability already associated with monoculture agriculture (Altieri 2000a). Unquestioned expansion of this technology into developing countries is not desirable. There is strength in the agricultural diversity of many of these countries, and it should not be inhibited or reduced by extensive monoculture, especially when the consequences of doing so results in serious social and environmental problems (Thrupp 1998).

It is through management of this biodiversity that small farmers located in marginal environments in the developing world can produce much of the needed food. The evidence is conclusive: new approaches and technologies spearheaded by farmers, local governments, and NGOs around the world are already making a sufficient contribution to food security at the household, national, and regional levels. A variety of agroecological and participatory approaches in many countries show very positive outcomes, even under adverse conditions. Potentials include: raising cereal yields from 50 to 200 per cent, increasing stability of production through diversification and soil/water management, improving diets and income with appropriate support and spread of these approaches, and contributing to national food security and to exports (Uphoff and Altieri 1999).

Whether the potential and spread of these thousands of local agroecological innovations is realised depends on investments, policies, and attitude changes on the part of researchers and policy makers. Major changes must be made in policies, institutions, and research and development to make sure that agroecological alternatives are adopted, made equitably and broadly accessible, and multiplied so that their full benefit for sustainable food security can be realised. Existing subsidies and policy incentives for conventional chemical approaches must be dismantled. Corporate control over the food system must also be challenged. It is urgent that governments and international public organisations encourage and support effective partnerships between NGOs, local universities, and farmer organisations in order to assist and empower poor farmers to achieve food security, income generation, and natural resource conservation.

Equitable market opportunities must also be developed emphasising fair trade and other mechanisms that link farmers and consumers more directly. The ultimate challenge is to increase investment and research in agroecology and scale up projects that have already proven successful to thousands of other farmers. If such initiatives are complemented with true land reform this holds the promise of productivity gains far outweighing

the potential of agricultural biotechnology. While industry proponents will often forecast 15, 20, or even 30 per cent yield gains from biotechnology, smaller farms today produce from 200-1,000 per cent more per unit area than larger farms, world-wide (Rosset 1999). Land reforms that bring average land holdings down to their optimum (small) size from the inefficient, unproductive overly large units that characterise much of world agriculture today, could provide the basis for production increases beside which the much ballyhooed promise of biotechnology would pale in comparison. This will generate a meaningful impact on the income, food security, and environmental well-being of the world's population, especially of the millions of poor farmers yet untouched by modern agricultural technology.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:48 AM
To: AGL Testimony
Cc: pamelaboyar@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pamela Boyar	Individual	Support	Yes

Comments: Please hear and support this bill. Mahalo

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nishihara1 - Amanda

From: Jeff [gokauai@gmail.com]
Sent: Wednesday, March 20, 2013 8:45 AM
To: AGL Testimony
Subject: HB174 Testimony 9am 3.21

Please support fully the labeling of GMO products thus allowing Hawaii residents the opportunity to make informed decisions about the foods we eat. 63 countries around the world including all of Europe, Russia, China, Japan, Australia and New Zealand already require mandatory labeling of GMO products.

Freedom of Choice, The Right To Know, The Right to Grow Healthy.

E ola pono,

Jeff C Fishman
P.O. Box 3574
Lihue HI 96766

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:44 AM
To: AGL Testimony
Cc: tyler.r.meier@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
tyler meier	Individual	Oppose	Yes

Comments: I would like to oppose the HB 174 against labeling of GM foods. Currently, there are choices within the market place that give those people opposed to GM foods an alternative to consuming GM products- those are products that are labeled as organic. There is no need to add additional costs to those people who have no issues or concerns with GM foods or consuming them. In Addition, to the cost implications by this bill there could be jobs lost and livelihoods changed because of this measure. This is not something that should be taken lightly and I understand the emotional state that comes with food consumption and not feeling "sure" of a controversial topic. However, I think it is also important to mention that there has not been one documented case of health illnesses related to GM foods and the thought of making it out to be something that it isn't and having additional cost associated with these products does not seem fair to the people. As state elected official it is your job to look at these issues and make sound judgments that are the best for the people from a safety, financial, and ethical perspective. Now do your job and oppose this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:41 AM
To: AGL Testimony
Cc: adairf@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB 174 Testimony [AF].docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Adair Fincher	Individual	Support	Yes

Comments:

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nishihara1 - Amanda

From: Jean Claude Drui [jcdru@euraminc.com]
Sent: Wednesday, March 20, 2013 8:37 AM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: HB 174 HD2 Testimony

Good Morning,

In reference to the above bill being heard it is my position that all foods that contain GMO products should be labeled.

My reasoning is very simple. Give the consumer a **choice** whether or not they wish to purchase GMO modified foods. What we eat is a basic right and a basic choice we (I) as a consumer can make.

I am a business owner and as such I would also have no problem labeling my own products whether or not they are GMO free or contain GMO products.

This not about the rights of companies to make the products that contain GMO but about the consumer having the opportunity to make a "choice decision".

I therefore humbly ask that you vote in support of GMO labeling.

Jean-Claude Drui
President
2176 Lauwiliwili St #101
Kapolei, HI 96707
808-682-4422 x 110 direct
808-682-8833 fax
www.hawaiianparadisecoffee.com

nishihara1 - Amanda

From: Courtney Puig [courtneypuig@gmail.com]
Sent: Wednesday, March 20, 2013 8:27 AM
To: AGL Testimony
Subject: Please choose to hear HB174

Aloha Senators,

Mahalo for choosing to hear HB 174. Please support the passage of GMO Labeling and HB 174. The people have a clear right to know what they are eating. Obviously only a nefarious agenda would strive to hide that information.

And on another level, which is even more important, this is about much more significant issues. It is about our democracy and who you, our elected officials are actually representing. These are times when the challenges are truly large, and we clearly recognize and empathize with the pressures that each of you are under continuously.

These are times when all of us are being severely tested to see if we have the courage to stand up for the deepest Truth that we know in our hearts. What do we make more important than the well being of our people and the land that we call our home?

And why would we choose to make anything more important than those values?? If we knew that this was our last day on Earth, what would we choose??? What will you choose??

When each one of us finds the courage to actually listen to, and act upon that place in our heart that recognizes Truth, a much better world for EVERYONE will emerge!! There are no special interest groups when Right Choices are made and Truth prevails. Right choices benefit everyone!!

We believe that a better world is rapidly approaching and that it's emergence is assured. We merely get to decide, through our choices, how painful that birth will be.

Of course in some circles these perspectives are considered naive. But they are riding on a rapidly rising tide of growing awareness everywhere. It will not be turned aside. It's time to catch that wave!!

Please support GMO Labeling by taking this one small step that is the passage of HB 174. The courage of that choice will support thousands of your people, rather than merely the greedy few, and that leadership will inspire your colleagues, your people, all of Hawaii, and far beyond.

You are facing a wonderful opportunity to truly make a difference for so many. It is a very valuable gift you are being offered in these times if you will but choose to receive it. You have the opportunity to show up and, not only receive that gift, but give an even greater gift to so many; to catalyze the extraordinary changes being energized in these times.

Not everyone is given the opportunity you have before you now. May we all be blessed with the Wisdom to know what is right, and the courage to do what is right.

Mahalo,

Courtney Zietz

Princeville Hawaii

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:52 AM
To: AGL Testimony
Cc: Barca808@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dustin barca	Ohana o Kauai	Support	Yes

Comments: Please support hb 174 . Hawaii is watching how this bill is handled very closely. Time to put human health over money. Aloha, Dustin Barca Ohana O Kauai

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:12 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Testimony Oppose HB 174.docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Michael Fleener	Syngenta Hawaii LLC	Oppose	Yes
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Comments:

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I believe GMO labeling is unnecessary and will add additional cost to food products purchased by local Hawaiians. GMO products – **food** (oils, syrups, livestock, soy protein, Etc.), **feed** and **fuel** + cotton – are embedded within our culture. Labeling these products would be time consuming and costly to implement. I support farming and encourage all types of methods (GMO, Organic, Etc.) as long as farmers are outstanding stewards of the land. I have lived here in Hawaii for 4.5 years now but I lived my first 33 years in Iowa. I support ethical and morally correct farming procedures and I believe the seed industry here in Hawaii at times receive incorrect stereotyping by the local media. The products we develop here are helping to alleviate world hunger. One step at a time, the seed industry – local Hawaiians - is reducing this global problem.

At this time, I must oppose the HB 174.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:52 PM
To: AGL Testimony
Cc: drmlsukyo@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO Myths and Truths 12.pdf

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Melissa L Yee	Seeds of Truth	Support	Yes

Comments: To the Honorable Chairpersons of the Senate Agriculture, Consumer Protection and health Committees and members, I strongly support the passage of this bill if amended to include local produce and to remove non GMO labeling. The people have spoken and we are pleased that this bill is being heard. However, we do not want it to turn into another PLDC fiasco from last year which only advantages corporations and leaves little room for the voice and input of the people. The constitutionality of this bill if amended has already been shown by the law students of the Richardson Law School and Paul Achitoff of Earthjustice. There is enough science to prove that there is nothing safe about GMOs no matter who you are going to cite-FDA, Dept of Agriculture or the biotech companies who create and control the studies. Hawaii should become the first state to label GMOs and must soon evict the bio tech companies that have poisoned our lands and our people with their chemicals. We are sick and tired of the propaganda and obfuscation of the facts. Please pass this bill and demonstrate to the world and Hawaii that you do indeed represent the people of Hawaii and not the corporations who are exploiting the natural and human resources solely for their own profit. Mahalo, Dr Melissa Yee Seeds of Truth Honolulu, Hawaii

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GMO MYTHS AND TRUTHS

An evidence-based examination
of the claims made for the
safety and efficacy of
genetically modified crops

Michael Antoniou

Claire Robinson

John Fagan

June 2012



GMO Myths and Truths

An evidence-based examination of the claims made for the safety and efficacy of genetically modified crops

Version 1.1

by

Michael Antoniou

Claire Robinson

John Fagan

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June 2012

About the authors

Michael Antoniou, PhD is reader in molecular genetics and head, Gene Expression and Therapy Group, King's College London School of Medicine, London, UK. He has 28 years' experience in the use of genetic engineering technology investigating gene organisation and control, with over 40 peer reviewed publications of original work, and holds inventor status on a number of gene expression biotechnology patents. Dr Antoniou has a large network of collaborators in industry and academia who are making use of his discoveries in gene control mechanisms for the production of research, diagnostic and therapeutic products and safe and efficacious human somatic gene therapy for inherited and acquired genetic disorders.

Claire Robinson, MPhil, is research director at Earth Open Source. She has a background in investigative reporting and the communication of topics relating to public health, science and policy, and the environment. She is an editor at GMWatch (www.gmwatch.org), a public information service on issues relating to genetic modification, and was formerly managing editor at SpinProfiles (now Powerbase.org).

John Fagan, PhD is a leading authority on sustainability in the food system, biosafety, and GMO testing. He is founder and chief scientific officer of Global ID Group, through which he has pioneered the development of innovative tools to verify and advance food purity, safety and sustainability. He co-founded Earth Open Source, which uses open source collaboration to advance sustainable food production. Earlier, he conducted cancer research at the US National Institutes of Health. He holds a PhD in biochemistry and molecular and cell biology from Cornell University.

Earth Open Source

Earth Open Source is a not-for-profit organization dedicated to assuring the sustainability, security, and safety of the global food system. It supports agroecological, farmer-based systems that conserve soil, water, and energy and that produce healthy and nutritious food free from unnecessary toxins. It challenges the use of pesticides, artificial fertilizer and genetically modified organisms (GMOs) on the grounds of the scientifically proven hazards that they pose to health and the environment and because of the negative social and economic impacts of these technologies. Earth Open Source holds that our crop seeds and food system are common goods that belong in the hands of farmers and citizens, not of the GMO and chemical industry.

Earth Open Source has established three lines of action, each of which fulfils a specific aspect of its mission:

- Science and policy platform
- Scientific research
- Sustainable rural development.

Science and policy

Because the quality of our food supply is intimately connected with political and regulatory decisions, for example, on pesticides and GMOs, Earth Open Source functions as a science and policy platform to provide input to decision-makers on issues relating to the safety, security and sustainability of our food system.

Earth Open Source has published and co-published several reports that have had impact internationally:

- Roundup and birth defects: Is the public being kept in the dark?
- GM Soy: Sustainable? Responsible?
- Conflicts on the menu: A decade of industry influence at the European Food Safety Authority (EFSA)
- Europe's pesticide and food safety regulators – Who do they work for?

Scientific research and sustainable rural development

Earth Open Source has laboratory and field research projects under way on several continents. Farmer-led agricultural development projects are ongoing in Asia. Details will be released as these projects come to fruition.

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EXECUTIVE SUMMARY

Genetically modified (GM) crops are promoted on the basis of a range of far-reaching claims from the GM crop industry and its supporters. They say that GM crops:

- Are an extension of natural breeding and do not pose different risks from naturally bred crops
- Are safe to eat and can be more nutritious than naturally bred crops
- Are strictly regulated for safety
- Increase crop yields
- Reduce pesticide use
- Benefit farmers and make their lives easier
- Bring economic benefits
- Benefit the environment
- Can help solve problems caused by climate change
- Reduce energy use
- Will help feed the world.

However, a large and growing body of scientific and other authoritative evidence shows that these claims are not true. On the contrary, evidence presented in this report indicates that GM crops:

- Are laboratory-made, using technology that is totally different from natural breeding methods, and pose different risks from non-GM crops
- Can be toxic, allergenic or less nutritious than their natural counterparts
- Are not adequately regulated to ensure safety
- Do not increase yield potential
- Do not reduce pesticide use but increase it
- Create serious problems for farmers, including herbicide-tolerant “superweeds”, compromised soil quality, and increased disease susceptibility in crops
- Have mixed economic effects
- Harm soil quality, disrupt ecosystems, and reduce biodiversity
- Do not offer effective solutions to climate change
- Are as energy-hungry as any other chemically-farmed crops
- Cannot solve the problem of world hunger but distract from its real causes – poverty, lack of access to food and, increasingly, lack of access to land to grow it on.

Based on the evidence presented in this report, there is no need to take risks with GM crops when effective, readily available, and sustainable solutions to the problems that GM technology is claimed to address already exist. Conventional plant breeding, in some cases helped by safe modern technologies like gene mapping and marker assisted selection, continues to outperform GM in producing high-yield, drought-tolerant, and pest- and disease-resistant crops that can meet our present and future food needs.

I. THE GENETIC ENGINEERING TECHNIQUE

1.1 Myth: Genetic engineering is just an extension of natural breeding

Truth: Genetic engineering is different from natural breeding and poses special risks

GM proponents claim that genetic engineering is just an extension of natural plant breeding. They say that GM crops are no different from naturally bred crops, apart from the inserted foreign GM gene (transgene) and its protein product. But this is misleading. GM is completely different from natural breeding and poses different risks.

Natural breeding can only take place between closely related forms of life (e.g. cats with cats, not cats with dogs; wheat with wheat, not wheat with tomatoes or fish). In this way, the genes that carry information for all parts of the organism are passed down the generations in an orderly way.

In contrast, GM is a laboratory-based technique that is completely different from natural breeding. The main stages of the genetic modification process are as follows:

1. In a process known as tissue culture or cell culture, tissue from the plant that is to be genetically modified is placed in culture.
2. Millions of the tissue cultured plant cells are subjected to the GM gene insertion process. This results in the GM gene(s) being inserted into the DNA of a few of the plant cells in tissue culture. The inserted DNA is intended to re-programme the cells' genetic blueprint, conferring completely new properties on the cell. This process would never happen in nature. It is carried out either by using a device known as a gene gun, which shoots the GM gene into the plant cells, or by linking the GM gene to a special piece of DNA present in the soil

Section at a glance

- ▶ Genetic engineering is completely different from natural breeding and entails different risks. The genetic engineering and associated tissue culture processes are imprecise and highly mutagenic, leading to unpredictable changes in the DNA, proteins, and biochemical composition of the resulting GM crop that can lead to unexpected toxic or allergenic effects and nutritional disturbances.
- ▶ Foods produced by cisgenic or intragenic methods are as hazardous as any other GM crop.
- ▶ It is misleading to compare GM with radiation-induced mutation breeding and to conclude that, as crops bred by the latter method are not tested for safety or regulated, neither should GM crops be tested or regulated. Radiation-induced mutation breeding is potentially even more mutagenic than GM, and at least as destructive to gene expression, and crops produced by this method should be regulated at least as strictly as GM crops.
- ▶ It is unnecessary to take risks with GM when conventional breeding – assisted by safe modern gene mapping technologies – is capable of meeting our crop breeding needs.

bacterium, *Agrobacterium tumefaciens*. When the *A. tumefaciens* infects a plant, the GM gene is carried into the cells and can insert into the plant cell's DNA.

3. At this point in the process, the genetic engineers have a tissue culture consisting of hundreds of thousands to millions of plant cells. Some have picked up the GM gene(s), while others have not. The next step is to treat the culture with chemicals to eliminate all except those cells that have successfully incorporated the GM gene into their own DNA.
4. Finally, the few cells that survive the chemical

treatment are treated with plant hormones. The hormones stimulate these genetically modified plant cells to proliferate and differentiate into small GM plants that can be transferred to soil and grown on.

5. Once the GM plants are growing, the genetic engineer examines them and eliminates any that do not seem to be growing well. He/she then does tests on the remaining plants to identify one or more that express the GM genes at high levels. These are selected as candidates for commercialisation.
6. The resulting population of GM plants all carry and express the GM genes of interest. But they have not been assessed for health and environmental safety or nutritional value. This part of the process will be discussed later in this document.

The fact that the GM transformation process is artificial does not automatically make it undesirable or dangerous. It is the consequences of the procedure that give cause for concern.

Muddying the waters with imprecise terms

GM proponents often use the terminology relating to genetic modification incorrectly to blur the line between genetic modification and conventional breeding.

For example, the claim that conventional plant breeders have been “genetically modifying” crops for centuries by selective breeding and that GM crops are no different is incorrect (see 1.1). The term “genetic modification” is recognised in common usage and in national and international laws to refer to the use of recombinant DNA techniques to transfer genetic material between organisms in a way that would not take place naturally, bringing about alterations in genetic makeup and properties.

The term “genetic modification” is sometimes wrongly used to describe marker-assisted selection (MAS). MAS is a largely uncontroversial branch of biotechnology that can speed up conventional breeding by identifying genes linked to important traits. MAS does not involve the risks and uncertainties of genetic modification and is supported by organic and sustainable agriculture groups worldwide.

Similarly, the term “genetic modification” is sometimes wrongly used to describe tissue culture, a method that is used to select desirable traits or to reproduce whole plants from plant cells in the laboratory. In fact, while genetic modification of plants as carried out today is dependent on the use of tissue culture (see 1.1), tissue culture is not dependent on GM. Tissue culture can be used for many purposes, independent of GM.

Using the term “biotechnology” to mean genetic modification is inaccurate. Biotechnology is an umbrella term that includes a variety of processes in which biological functions are harnessed for various purposes. For instance, fermentation, as used in wine-making and baking, marker assisted selection (MAS), and tissue culture, as well as genetic modification, are all biotechnologies. Agriculture itself is a biotechnology, as are commonly used agricultural methods such as the production of compost and silage.

GM proponents’ misleading use of language may be due to unfamiliarity with the field – or may represent deliberate attempts to blur the lines between controversial and uncontroversial technologies in order to win public acceptance of GM.

1.2 Myth: Genetic engineering is precise and the results are predictable

Truth: Genetic engineering is crude and imprecise, and the results are unpredictable

GM proponents claim that GM is a precise technique that allows genes coding for the desired trait to be inserted into the host plant with no unexpected effects.

The first step in genetically engineering plants, the process of cutting and splicing genes in the test tube, is precise, but subsequent steps are not. In particular, the process of inserting a genetically modified gene into the DNA of a plant cell is crude, uncontrolled, and imprecise, and causes mutations – heritable changes – in the plant’s DNA blueprint.¹ These mutations can alter the functioning of the natural genes of the plant in unpredictable and potentially harmful ways.^{2,3} Other procedures associated with producing GM crops, including tissue culture, also produce mutations.¹

In addition to the unintended effects of mutations, there is another way in which the GM process generates unintended effects. Promoters of GM crops paint a picture of GM technology that is based on a naïve and outdated understanding of how genes work. They propagate the simplistic idea that they can insert a single gene with laser-like precision and insertion of that gene will have a single, predictable effect on the organism and its environment.

But manipulating one or two genes does not just produce one or two desired traits. Instead, just a single change at the level of the DNA can give rise to multiple changes within the organism.^{2,4} These changes are known as pleiotropic effects. They occur because genes do not act as isolated units but interact with one another, and the functions and structures that the engineered genes confer on the organism interact with other functional units of the organism.

Because of these diverse interactions, and because even the simplest organism is extremely complex, it is impossible to predict the impacts of even a single GM gene on the organism. It is even more impossible to predict the impact of the GMO

on its environment – the complexity of living systems is too great.

In short, unintended, uncontrolled mutations occur during the GM process and complex interactions occur at multiple levels within the organism as a result of the insertion of even a single new gene. For these reasons, a seemingly simple genetic modification can give rise to many unexpected changes in the resulting crop and the foods produced from it. The unintended changes could include alterations in the nutritional content of the food, toxic and allergenic effects, poor crop performance, and generation of characteristics that harm the environment.

These unexpected changes are especially dangerous because they are irreversible. Even the worst chemical pollution diminishes over time as the pollutant is degraded by physical and biological mechanisms. But GMOs are living organisms. Once released into the ecosystem, they do not degrade and cannot be recalled, but multiply in the environment and pass on their GM genes to future generations. Each new generation creates more opportunities to interact with other organisms and the environment, generating even more unintended and unpredictable side-effects.

How can these unintended, unexpected and potentially complex effects of genetic engineering be predicted and controlled? Promoters of GM crops paint a simplistic picture of what is needed for assessing the health and environmental safety of a GMO. But the diversity and complexity of the effects, as well as their unpredictable nature, create a situation where even a detailed safety assessment could miss important harmful effects.

1.3 Myth: GM is just another form of mutation breeding and is nothing to worry about

Truth: Mutation breeding brings its own problems and should be strictly regulated

Proponents often describe GM as just another form of mutation breeding, a method of plant breeding which they say has been successfully used for decades and is not controversial. They argue that mutation breeding is regulated no differently than conventional breeding, that genetic modification is just another form of mutation breeding, and that therefore, genetic modification should not be regulated any more stringently than conventional breeding.

However, scientific evidence exposes flaws in this logic.

1.3.1. What is mutation breeding?

The physical form of an organism's genetic blueprint is the sequence of the four "letters" of the genetic alphabet structured within the DNA molecules. Mutations are physical alterations in the sequence of letters within the DNA. Mutation breeding is the process of exposing plant seeds to ionizing radiation (x-rays or gamma rays) or mutagenic chemicals in order to increase the rate of mutation in the DNA.

Just as you can change the meaning of a sentence by changing the sequence of letters in the sentence, you can change the "meaning" of a gene by changing the sequence of letters within the genetic code of the DNA of an organism. A mutagen is a physical or chemical agent that causes such changes.

This process of change in the DNA is known as mutagenesis. Mutagenesis can either completely destroy the function of a gene – that is, "knock out" its function, or it can change the sequence of letters of the genetic code in the gene, causing it to direct the cell to produce one or more proteins with altered function. The resulting plant is called a mutant.

1.3.2. Where did radiation-induced mutation breeding come from?

Mutation breeding using radiation was first

seriously investigated in the 1950s, after the US atomic bombing of Japan at the end of World War II in 1945. In the wake of the devastation, there was a desire to find uses for the "peaceful atom" that were helpful to humanity. Atomic Gardens were set up in the US and Europe with the aim of creating high-yielding and disease-resistant crops. They were laid out in a circle with a radiation source in the middle that exposed plants and their seeds to radiation. This would cause mutations in the plants that it was hoped would be beneficial. To the lay population this was euphemistically described as making the plants "atom energized". The results were poorly documented – certainly they do not qualify as scientific research – and it is unclear whether any useful plant varieties emerged from Atomic Garden projects.⁵

Today, radiation-induced mutation breeding is carried out in laboratories, but this branch of plant breeding retains strong links with the nuclear industry. The main database of crop varieties generated using radiation- and chemically-induced mutation breeding is maintained by the UN Food and Agriculture Organisation and the International Atomic Energy Agency.⁶ Many studies and reports that recommend radiation-induced mutation breeding are sponsored by organizations that promote nuclear energy.^{7,8}

1.3.3. Is mutation breeding widely used?

Mutation breeding is not a widely used or central part of crop breeding, though a few crop varieties have apparently benefited from it. A database maintained by the UN Food and Agriculture Organisation and the International Atomic Energy Agency keeps track of plant varieties that have been generated using mutation breeding and by cross-breeding with a mutant plant.⁶ There are only around 3,000 such plant varieties. This number includes not only crop plants but also

ornamental plants.⁹ It also includes not only the direct mutant varieties, but also varieties bred by crossing the mutants with other varieties by conventional breeding. Thus the actual number of primary mutant varieties is significantly lower than 3000.

Some commercially important traits have come out of mutation breeding, such as the semi-dwarf trait in rice, the high oleic acid trait in sunflower, the semi-dwarf trait in barley, and the low-linolenic acid trait in canola (oilseed rape).^{9,10,11}

But conventional breeding, in contrast, has produced millions of crop varieties. The Svalbard seed vault in the Arctic contains over 400,000 seed varieties,¹² which are estimated to represent less than one-third of our most important crop varieties.¹³ So relatively speaking, mutation breeding is of only marginal importance in crop development.

The reason mutation breeding is not more widely used is that the process of mutagenesis is risky, unpredictable, and does not efficiently generate beneficial mutations. Studies on fruit flies suggest that about 70% of mutations will have damaging effects on the functioning of the organism, and the remainder will be either neutral or weakly beneficial.¹⁴

Because of the primarily harmful effects of mutagenesis, the genetic code is structured to minimize the impacts of mutations and organisms have DNA repair mechanisms to repair mutations. In addition, regulatory agencies around the world are supposed to minimise or eliminate exposure to manmade mutagens.

In plants as well as fruit flies, mutagenesis is a destructive process. As one textbook on plant breeding states, "Invariably, the mutagen kills some cells outright while surviving plants display a wide range of deformities."¹⁵ Experts conclude that most such induced mutations are harmful, and lead to unhealthy and/or infertile plants.^{15,16} Occasionally, mutagenesis gives rise to a previously unknown feature that may be beneficial and can be exploited.

The process of screening out undesirable traits and identifying desirable ones for further breeding has been likened to "finding a needle in a haystack".¹⁵ The problem is that only certain

types of mutations, such as those affecting shape or colour, are obvious to the eye. These plants can easily be discarded or kept for further breeding as desired. But other more subtle changes may not be obvious, yet may nonetheless have important impacts on the health or performance of the plant. Such changes can only be identified by expensive and painstaking testing.¹⁵

A report by the UK government's GM Science Review Panel concluded that mutation breeding "involves the production of unpredictable and undirected genetic changes and many thousands, even millions, of undesirable plants are discarded in order to identify plants with suitable qualities for further breeding."¹⁷

In retrospect, it is fortunate that mutation breeding has not been widely used because that has reduced the likelihood that this risky technology could have generated crop varieties that are toxic, allergenic, or reduced in nutritional value.

1.3.4. How does GM create mutations?

Just as mutation breeding is highly mutagenic, so is the process of creating a GM plant. The GM transformation process involves three kinds of mutagenic effects: insertional mutagenesis, genome-wide mutations, and mutations caused by tissue culture – described below.^{1,2}

Insertional mutagenesis

Genetic modification or genetic engineering of an organism always involves the insertion of a foreign gene into the genome (DNA) of the recipient organism. The insertion process is uncontrolled, in that the site of insertion of the foreign gene is random. The insertion of the GM gene (transgene) disrupts the normal sequence of the letters of the genetic code within the DNA of the plant, causing what is called insertional mutagenesis. This can occur in a number of different ways:

- The GM gene can be inserted into the middle of one of the plant's natural genes. Typically this blocks the expression of ("knocks out") the natural gene, destroying its function. Less frequently the insertion event will alter the natural plant gene's structure and the structure

and function of the protein for which it is the blueprint.

- The GM gene can be inserted into a region of the plant's DNA that controls the expression of one or more genes of the host plant, unnaturally reducing or increasing the function of those genes.
- Even if the GM gene is not directly inserted into a host gene or its control region, its mere presence within an active host gene region can alter the ability of that region of the plant's DNA to form chromatin (the combination of DNA and proteins that make up the contents of a cell nucleus) structures that influence the ability of any gene in that region to be expressed. The inserted gene can also compete with host genes for gene expression control elements (comparable to switches that turn the expression of a gene on or off) or regulatory proteins, resulting in marked disturbances in the level and pattern of gene expression.

Since the insertion of the GM gene is an imprecise and uncontrolled process, there is no way of predicting or controlling which of the plant's genes will be influenced – or the extent of the changes caused by the inserted gene.

Genome-wide mutations

In most cases, the insertion process is not clean. In addition to the intended insertion, fragments of the GM gene's DNA can be inserted at other locations in the genome of the host plant. Each of these unintended insertional events may also be mutagenic and can disrupt or destroy the function of other genes in the same ways as the full GM gene.

It is estimated that there is a 53–66% probability that any insertional event will disrupt a gene.¹ Therefore, if the genetic modification process results in one primary insertion and two or three unintended insertions, it is likely that at least two of the plant's genes will be disrupted.

Research evidence also indicates that the GM transformation process can also trigger other kinds of mutations – rearrangements and deletions of the plant's DNA, especially at the site of insertion of the GM gene¹ – which are likely to compromise the functioning of genes important to the plant.

Mutations caused by tissue culture

Three of the central steps in the genetic modification process take place while the host plant cells are being grown in a process called cell culture or tissue culture. These steps include:

- (i) The initial insertion of the GM gene(s) into the host plant cells
- (ii) The selection of plant cells into which the GM gene(s) have been successfully inserted
- (iii) The use of plant hormones to induce cells selected in (ii), above, to develop into plantlets with roots and leaves.

The process of tissue culture is itself highly mutagenic, causing hundreds or even thousands of mutations throughout the host cell DNA.^{1,2} Since tissue culture is obligatory to all three steps described above and these steps are central to the genetic engineering process, there is abundant opportunity for tissue culture to induce mutations in the plant cells.

Given the fact that hundreds of genes may be mutated during tissue culture, there is a significant risk that a gene important to some property such as disease- or pest-resistance could be damaged. In another example, a gene that plays a role in controlling chemical reactions in the plant could be damaged, making the crop allergenic or reducing its nutritional value. The effects of many such mutations will not be obvious when the new GM plant is growing in a greenhouse and so genetic engineers will not be able to select them out.

In the process of insertion of a GM gene into the plant host DNA (step i, above), the GM gene is linked with an antibiotic resistance "marker" gene, which will later enable the genetic engineer to identify which plant cells have successfully incorporated the GM gene into their genome.

The host plant cells are then exposed simultaneously to the GM gene and the antibiotic resistance gene in the hope that some will successfully incorporate the GM gene into their genome.

This is a very inefficient process because genomes are designed to exclude foreign genetic material – for example, invading viruses. So out of hundreds of thousands or even millions of host plant cells exposed to the GM gene, only a few will

successfully incorporate the GM gene.

In order to identify and propagate the plant cells that have successfully incorporated the GM gene (step ii, above), biotechnologists usually use antibiotic resistance marker genes. This is because a cell that has successfully integrated the antibiotic resistance marker gene into its genome and expressed that gene is likely also to have integrated the GM gene into its genome and expressed that gene. Therefore, when the population of plant cells is exposed to the antibiotic, the vast majority of recipient plant cells die, leaving only the few cells that have incorporated and expressed the antibiotic resistance marker gene. In almost all cases these cells have also incorporated the GM gene.

Interestingly, this antibiotic-based selection process relies on the expression of the marker gene. This expression is required to make the plant resistant to the antibiotic. If this gene does not express its protein, it will not confer resistance to the antibiotic.

However, not all regions of the plant cell DNA are *permissive* for the gene expression process to take place. In fact, the vast majority of any cell's DNA is *non-permissive*. Because the process of inserting the DNA that contains the GM gene and the antibiotic resistance marker gene is essentially random, most insertions will occur in non-permissive regions of the plant cell DNA and will not result in expression of either the marker gene or the GM gene. Cells in which such insertions have occurred will not survive exposure to the antibiotic. Only when the antibiotic resistance marker gene happens to have been inserted into a permissive region of the plant cell DNA will the cell express the marker gene and be resistant to the antibiotic.

Permissive regions are areas of DNA where genes important to the functioning of the recipient plant cells are present and active. Thus, selection for antibiotic resistance also selects for recipient cells in which the antibiotic marker gene (and by default the GM gene) have inserted into permissive regions of DNA. The consequence of this is an increased likelihood that the insertion of the GM gene and antibiotic marker gene may cause mutational damage to the structure or

function of a gene or genes that are important to the function and even the survival of the recipient plant cell.

This means that the GM procedure maximises the likelihood that incorporation of the GM gene will result in insertional mutagenesis to – *damage to* – one or more genes that are active and important to the functioning of the plant host.

We conclude from this analysis of the mechanisms by which the GM process can cause mutations that it is not the elegant and precisely controlled scientific process that proponents claim but depends on a large measure of good fortune as to whether one obtains the desired outcome without significant damage.

1.3.5. Is GM technology becoming more precise?

Technologies have been developed that can target GM gene insertion to a predetermined site within the plant's DNA in an effort to obtain a more predictable outcome and avoid complications that can arise from insertional mutagenesis.^{18,19,20,21,22}

However, these GM transformation methods are not fail-safe. Accidental mistakes can still occur. For example, the genetic engineer intends to insert the gene at one particular site, but the gene might instead be inserted at a different site, causing a range of side-effects.

More importantly, plant biotechnologists still know only a fraction of what there is to be known about the genome of any crop species and about the genetic, biochemical, and cellular functioning of our crop species. That means that even if they select an insertion site that they think will be safe, insertion of a gene at that site could cause a host of unintended side-effects that could:

- Make the crop toxic, allergenic or reduced in nutritional value
- Reduce the ability of the GM crop to resist disease, pests, drought, or other stresses
- Reduce the GM crop's productivity or compromise other agronomic traits, or
- Cause the GM crop to be damaging to the environment.

Moreover, because tissue culture must still be carried out for these new targeted insertion methods, the mutagenic effects of the tissue

culture process remain a major source of unintended damaging side-effects.

These newer methods are also cumbersome and time-consuming, so much so that to date no GM crop that is currently being considered by regulators for approval or that is in the commercialisation pipeline has been produced using these targeted engineering methods.

1.3.6. Why worry about mutations caused in genetic engineering?

GM proponents make four basic arguments to counter concerns about the mutagenic aspects of genetic engineering:

“Mutations happen all the time in nature”

GM proponents say, “Mutations happen all the time in nature as a result of various natural exposures, for example, to ultraviolet light, so mutations caused by genetic engineering of plants are not a problem.”

In fact, mutations occur infrequently in nature.⁹ And comparing natural mutations with those that occur during the GM transformation process is like comparing apples and oranges. Every plant species has encountered natural mutagens, including certain types and levels of ionizing radiation and chemicals, throughout its natural history and has evolved mechanisms for preventing, repairing, and minimising the impacts of mutations caused by such agents. But plants have not evolved mechanisms to repair or compensate for the insertional mutations that occur during genetic modification. Also, the high frequency of mutations caused by tissue culture during the GM process is likely to overwhelm the repair mechanisms of crop plants.

Natural recombination events that move large stretches of DNA around a plant’s genome do occur. But these involve DNA sequences that are already part of the plant’s own genome, not DNA that is foreign to the species.

“Conventional breeding is more disruptive to gene expression than GM”

GM proponents cite studies by Batista and colleagues²³ and Ahloowalia and colleagues¹⁰ to claim that “conventional” breeding is at least as

disruptive to gene expression as GM.²⁴ They argue that if we expect GM crops to be tested extensively because of risks resulting from mutations, then governments should require conventionally bred plants to be tested in the same way. But they do not, and experience shows that plants created by conventional breeding are not hazardous. Therefore crops generated by conventional breeding and by genetic engineering present no special risks and do not require special testing.

This argument is based on what appears to be an intentional misrepresentation of the studies of Batista and Ahloowalia. These studies did not compare conventional breeding with GM, but gamma-ray-induced mutation breeding with GM.

The research of Batista and colleagues and Ahloowalia and colleagues actually provides strong evidence consistent with our arguments, above, indicating that mutation breeding is highly disruptive – even more so than genetic modification.

Batista and colleagues found that in rice varieties developed through radiation-induced mutation breeding, gene expression was disrupted even more than in varieties generated through genetic modification. They concluded that for the rice varieties examined, mutation breeding was more disruptive to gene expression than genetic engineering.²³

Thus, Batista and colleagues compared two highly disruptive methods and concluded that genetic engineering was, in the cases considered in their study, the less disruptive of the two methods.

The GM proponents used the work of Batista and colleagues and Ahloowalia and colleagues to argue that, since mutation breeding is not regulated, genetic modification of crops should not be regulated either. The amusing part of their argument is that they represent the mutation-bred crop varieties as “conventionally bred”, not even mentioning that they were generated through exposure to high levels of gamma radiation. They then argue that, since these supposedly “conventionally bred” varieties are disrupted similarly to the GM varieties studied, it was not justified to require GM crop varieties to be subjected to safety assessment when

“conventionally bred” varieties were not.²⁴

Their argument only carries weight if the reader is unaware of the biotech proponents’ misrepresentation of mutation bred varieties as “conventionally bred”. When this fact comes to light, it not only causes their argument to disintegrate, but also exposes what appears to be a willingness to bend the truth to make arguments favouring GM technology. This in turn raises questions regarding the GM proponents’ motives and adherence to the standards of proper scientific debate.

Interestingly, the GM proponents’ conclusions were diametrically opposite to the conclusions that Batista and colleagues drew from their findings. The researchers concluded that crop varieties produced through mutation breeding and crops produced through genetic engineering should both be subjected to rigorous safety testing.²³

In contrast, the GM proponents ignored the conclusions of Batista and colleagues and concluded the opposite: that as mutation-bred crops are not currently required to be assessed for safety, GM crops should not be subjected to such a requirement either.

We agree with the conclusions of Batista and colleagues. Although their study does not examine enough GM crop varieties and mutation-bred crop varieties to make generalised comparisons between mutation breeding and genetic engineering, it does provide evidence that both methods significantly disrupt gene regulation and expression, suggesting that crops generated through these two methods should be assessed for safety with similar levels of rigour. The fact that the risks of mutation breeding have been overlooked in the regulations of some countries does not justify overlooking the risks of GM crops.

We recommend that regulations around the world should be revised to treat mutation-bred crops with the same sceptical scrutiny with which GM crops should be treated. In fact, the Canadian government has reached a similar conclusion and requires mutation-bred crops to be assessed according to the same requirements as GMOs produced through recombinant DNA techniques.²⁵

“Mutations occurring in genetic modification are no different from those that occur in natural breeding”

GM proponents say that in conventional breeding, traits from one variety of a crop are introduced into another variety by means of a genetic cross. They point out that the result is offspring that receive one set of chromosomes from one parent and another set from the other. They further point out that, during the early stages of development, those chromosomes undergo a process (sister chromatid exchange) in which pieces of chromosomes from one parent are recombined with pieces from the other.

They suggest that the result is a patchwork that contains tens of thousands of deviations from the DNA sequences present in the chromosomes of either parent. They imply that these deviations can be regarded as tens of thousands of mutations, and conclude that because we do not require these crosses to undergo biosafety testing before they are commercialised, we should not require GM crops, which contain only a few genetic mutations, to be tested.

But this is a spurious argument, because sister chromatid exchange (SCE) is not the random fragmentation and recombination of the chromosomes of the two parents. Exchanges occur in a precise manner between the corresponding genes and their surrounding regions in the chromosomes donated by the two parents. SCE is not an imprecise, uncontrolled process like genetic modification.

Natural mechanisms at work within the nucleus of the fertilized egg result in precise recombination events between the copy of the maternal copy of gene A and the paternal copy of gene A. Similarly, thousands of other precise recombination events take place between the corresponding maternal and paternal genes to generate the genome that is unique to the new individual.

This is not an example of random mutations but of the precision with which natural mechanisms work on the level of the DNA to generate diversity within a species, yet at the same time preserve, with letter-by-letter exactness, the integrity of the genome.

When a fertilised ovum undergoes sister chromatid exchange as part of conventional breeding, the chromosome rearrangements do not take place in a random and haphazard way, but are precisely guided so that no information is lost. There can be defects in the process, which could lead to mutations. But the process works against defects occurring by employing precise cellular mechanisms that have evolved over hundreds of thousands of years to preserve the order and information content of the genome of the species.

Genetic engineering, on the other hand, is an artificial laboratory procedure that forcibly introduces foreign DNA into the cells of a plant. Once the engineered transgene is in the nucleus of the cells, it breaks randomly into the DNA of the plant and inserts into that site. Furthermore, GM plants do not contain only a few mutations. The GM transformation process produces hundreds or thousands of mutations throughout the plant's DNA.

For these reasons, conventional breeding is far more precise and carries fewer mutation-related risks than genetic engineering.

“We will select out harmful mutations”

GM proponents say that even if harmful mutations occur, that is not a problem. They say that during the genetic engineering process, the GM plants undergo many levels of screening and selection, and the genetic engineers will catch any plants that have harmful mutations and eliminate them during this process.

As explained above, the process of gene insertion during the process of genetic modification selects for engineered GM gene insertion into active gene regions of the host (recipient) plant cell. This means that the process has a high inherent potential to disrupt the function of active genes present in the plant's DNA.

In many cases, the disruption will be fatal – the engineered cell will die and will not grow into a GM plant. In other cases, the plant will compensate for the lost function in some way, or the insertion will occur at a location that seems to cause minimal disruption of the plant cell's functioning. This is what is desired. But just

because a plant grows vigorously does not mean that it is safe to eat and safe for the environment. It could have a mutation that causes it to produce substances that harm consumers or to damage the ecosystem.

Genetic engineers do not carry out detailed screening that would catch all potentially harmful plants. They introduce the GM gene(s) into hundreds or thousands of plant cells and grow them out into individual GM plants. If the gene insertion process has damaged the function of one or more plant cell genes that are essential for survival, the cell will not survive this process. So plants carrying such “lethal” mutations will be eliminated. But the genetic engineer is often left with several thousand individual GM plants, each of them different, because:

- The engineered genes have been inserted in different locations within the DNA of each plant
- Other mutations or disturbances in host gene function have occurred at other locations in the plants through the mechanisms described above (1.3.4).

How do genetic engineers sort through the GM plants to identify the one or two that they are going to commercialise? The main thing that they do is to verify that the trait that the engineered transgene is supposed to confer has been expressed in the plant. That is, they do a test that allows them to find the few plants among the many thousands that express the desired trait. Of those, they pick one that looks healthy, strong, and capable of being bred on and propagated.

That is all they do. Such screening cannot detect plants that have undergone mutations that cause them to produce substances that are harmful to consumers or lacking in important nutrients.

It is unrealistic for GM proponents to claim that they can detect all hazards based on differences in the crop's appearance, vigour, or yield. Some mutations will give rise to changes that the breeder will see in the greenhouse or field, but others give rise to changes that are not visible because they occur at a subtle biochemical level or only under certain circumstances. So only a small proportion of potentially harmful mutations will be eliminated by the breeder's superficial

inspection. Their scrutiny cannot ensure that the plant is safe to eat.

Some agronomic and environmental risks will be missed, as well. For instance, during the GM transformation process, a mutation may destroy a gene that makes the plant resistant to a certain pathogen or an environmental stress like extreme heat or drought. But that mutation will be revealed only if the plant is intentionally exposed to that pathogen or stress in a systematic way. Developers of GM crops are not capable of screening for resistance to every potential pathogen or environmental stress. So such mutations can sit like silent time bombs within the GM plant, ready to “explode” at any time when there is an outbreak of the relevant pathogen or an exposure to the relevant environmental stress.

An example of this kind of limitation was an early – but widely planted – variety of Roundup Ready® soy. It turned out that this variety was much more sensitive than non-GM soy varieties to heat stress and more prone to infection.²⁶

1.4 **Myth:** Cisgenics/intragenics is a safe form of GM because no foreign genes are involved

Truth: Cisgenic/intragenic foods are just as risky as any other GM food

Some scientists and GM proponents are promoting a branch of genetic engineering they have termed “cisgenics” or “intragenics”, which they say only uses genes from the species to be engineered, or a related species. They say that cisgenic/intragenic GMOs are safer and more publicly acceptable than transgenic GMOs, on the claimed grounds that no foreign genes are introduced.^{27,28}

An article on the pro-GM Biofortified website, “Cisgenics – transgenics without the transgene”, bluntly states the public relations value of cisgenics: “The central theme is to placate the misinformed public opinion by using clever technologies to circumvent traditional unfounded criticisms of biotechnology.”²⁹

An example of a cisgenic product is the GM “Arctic” non-browning apple, which a Canadian biotechnology company has applied to commercialise in the US and Canada.^{30,31}

GM proponents appear to see intragenics/cisgenics as a way of pushing GM foods through regulatory barriers. As two researchers write: “A strong case has been made for cisgenic plants to come under a new regulatory tier with reduced regulatory oversight or to be exempted from GM regulation.”³¹

However, in reality, cisgenics and intragenics are just transgenics by another name. The artificial nature of the transgene construct and its way of introduction into the host plant genome make cisgenics/intragenics just as transgenic as cross-species transfers.

The word “intragenic” implies that only genes within the genome of a single species are being manipulated. But although it is possible to isolate a gene from maize, for example, and then put it back into maize, this will not be a purely intragenic process. This is because in order to put the gene back into maize, it is necessary to link it to other sequences at least from bacteria and possibly also from viruses, other organisms, and even synthetic

DNA. Inevitably, “intragenic” gene transfer uses sequences from other organisms. Thus, though the gene of interest may be from the same species as the recipient organism, the totality of the genetically modified DNA introduced is not purely intragenic, but is transgenic, in the sense that some of the genetic elements that are introduced into the recipient plant are derived from another species.

The supposedly intragenic Arctic apple is clearly transgenic, in that sequences from foreign species were part of the DNA construct that was introduced into the apple. This introduces major uncertainties into the plant’s functioning, because the effects that those foreign sequences might have on the recipient organism are unknown.

The process of inserting any fragment of DNA, whether intragenic or transgenic, into an organism via the GM transformation process carries the same risks. These risks have been discussed in detail, above. Insertion takes place in an uncontrolled manner and results in at least one insertional mutation event within the DNA of the recipient organism. The insertional event will interrupt some sequence within the DNA of the organism and interfere with any natural function that the interrupted DNA may carry. For instance, if the insertion occurs in the middle of a gene, the gene’s function could be destroyed. As a result, the organism will lose the cellular function that the gene encodes. In addition, mutagenic effects on the plant’s DNA caused by the tissue culture process occur with cisgenics/intragenics, just as with transgenics.

In conclusion, cisgenic/intragenic plants carry the same environmental and health risks as transgenic GM plants.

Conclusion to Section I

GM proponents claim that genetic engineering of crops is no more risky than natural/conventional breeding. But in fact, genetic engineering is different from natural/conventional plant breeding and poses special risks. In particular, the genetic engineering and associated tissue culture processes are highly mutagenic, leading to unpredictable changes in the DNA and proteins of the resulting GM crop that can lead to unexpected toxic or allergenic effects.

Cisgenic or intragenic GM crops pose the same risks as any other transgenic crop. There is nothing “new” about cisgenics/intragenics. These methods only differ from transgenic methods with regard to the choice of organism from which the gene of interest is taken.

Sometimes GM proponents misleadingly compare genetic engineering with radiation-induced mutagenesis, claiming that the latter is natural or conventional breeding, and conclude that genetic engineering is safer than “conventional” breeding. In fact, while radiation-induced mutagenesis is occasionally used in conventional breeding, it is not in itself conventional breeding. Like genetic engineering, radiation-induced mutagenesis is risky and mutagenic. It is not widely used in plant breeding because of its high failure rate. Some researchers have called for crops bred through mutation breeding to be subjected to the same kind of safety assessments as GM crops, a measure required by Canada’s food safety authority.

Comparing genetic engineering with radiation-induced mutagenesis and concluding that it is less risky and therefore safe is like comparing a game of Russian Roulette played with one type of gun with a game of Russian Roulette played with another type of gun. Neither game is safe. Both are risky.

A more useful comparison would be between genetic engineering and conventional breeding that does not involve radiation- or chemical-induced mutagenesis. In fact, this is the method that has safely produced the vast majority of our crop plants over the centuries. It is also the method that is most widely used today.

In challenging genetic modification, we are not rejecting science and are not rejecting the most advanced forms of biotechnology, such as marker assisted selection, which speed up and make more precise the methods of conventional breeding. We are only challenging the premature and misguided commercialisation of crops produced using the imprecise, cumbersome, and outdated method of genetic engineering (recombinant DNA technology). Why use these methods when there are better tools in the biotechnology toolbox?

It is unnecessary to take risks with genetic engineering when conventional breeding – assisted by safe modern technologies such as marker assisted selection – is capable of meeting our crop breeding needs (see 7.3.2).

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2. SCIENCE AND REGULATION

2.1 Myth: GM foods are strictly regulated for safety

Truth: GM food regulation in most countries varies from non-existent to weak

"Monsanto should not have to vouchsafe the safety of biotech food. Our interest is in selling as much of it as possible. Assuring its safety is the FDA's job."

– Philip Angell, Monsanto's director of corporate communications¹ (the FDA is the US government's Food and Drug Administration, responsible for food safety)

"Ultimately, it is the food producer who is responsible for assuring safety."

– US Food and Drug Administration (FDA)²

"It is not foreseen that EFSA carry out such [safety] studies as the onus is on the [GM industry] applicant to demonstrate the safety of the GM product in question."

– European Food Safety Authority (EFSA)³

Industry and some government sources claim that GM foods are strictly regulated.⁴ But GM food regulatory systems worldwide vary from voluntary industry self-regulation (in the US) to weak (in Europe). None are adequate to protect consumers' health.

2.1.1. The regulatory process in the USA

"One thing that surprised us is that US regulators rely almost exclusively on information provided by the biotech crop developer, and those data are not published in journals or subjected to peer review... The picture that emerges from our study of US regulation of GM foods is a rubber-stamp 'approval process' designed to increase public confidence in, but not ensure the safety of, genetically engineered foods."

Section at a glance

- ▶ The regulatory regime for GM crops and foods is too weak to protect consumers from the hazards posed by the technology. Regulation is weakest in the US, but is inadequate in most regions of the world, including Europe.
- ▶ The US regime assumes that GM crops are safe if certain basic constituents of the GM crop are "substantially equivalent" to those of their non-GM counterparts – a term that has not been legally or scientifically defined. The European regime applies the same concept but terms it "comparative safety assessment". However, when systematic scientific comparisons of a GM crop and its non-GM counterpart are undertaken, the assumption of substantial equivalence is often shown to be false.
- ▶ Pro-GM lobbyists have weakened the regulatory process for GM crops, including through the industry-funded group ILSI. No long-term rigorous safety testing of GMOs is required and regulatory assessments are based on data provided by the company that is applying to commercialise the crop.
- ▶ The GM industry restricts access to its products by independent researchers, so effects on health and the environment cannot be properly investigated.
- ▶ Independent researchers who have published papers containing data that is not supportive of GMOs have been attacked by pro-GM industry groups and individuals (the "shoot the messenger" tactic).

– David Schubert, professor and head, Cellular Neurobiology Laboratory, Salk Institute, commenting on a comprehensive peer-reviewed study of US government's regulation of GMOs that he co-authored^{5,6}

GM foods were first commercialised in the US in the early 1990s. The US food regulator, the Food

and Drug Administration (FDA), allowed the first GM foods onto world markets in spite of its own scientists' warnings that genetic engineering is different from conventional breeding and poses special risks, including the production of new toxins or allergens.^{7,8,9,10,11,12} The FDA overruled its scientists in line with a US government decision to "foster" the growth of the GM industry.¹³ The FDA formed a policy for GM foods that did not require any safety tests or labelling.

The creation of this policy was overseen by Michael Taylor, FDA's deputy commissioner of policy – a position created especially for Taylor. Taylor was a former attorney for the GM giant Monsanto and later became its vice president for public policy.¹⁴

Contrary to popular belief, the FDA does not have a mandatory GM food safety assessment process and has never approved a GM food as safe. It does not carry out or commission safety tests on GM foods. Instead, the FDA operates a *voluntary* programme for pre-market review of GM foods. All GM food crops commercialised to date have gone through this review process, but there is no legal requirement for them to do so. Companies that develop GM crops are allowed to put any GMO (genetically modified organism) on the market that they wish, though they can be held liable for any harm to consumers that results from it.

The outcome of the FDA's voluntary assessment is not a conclusion, underwritten by the FDA, that the GMO is safe. Instead, the FDA sends the company a letter to the effect that:

- The FDA acknowledges that the company has provided a summary of research that it has conducted assessing the GM crop's safety
- The FDA states that, based on the results of the research done by the company, the company has concluded that the GMO is safe
- The FDA states that it has no further questions
- The FDA reminds the company that it is responsible for placing only safe foods in the market
- The FDA reminds the company that, if a product is found to be unsafe, the company may be held liable.¹⁵

Clearly, this process does not guarantee – or even attempt to investigate – the safety of GM foods.

While it does not protect the public, it may protect the FDA from legal liability in the event that harm is caused by a GM food.

2.1.2. The sham of substantial equivalence

"The concept of substantial equivalence has never been properly defined; the degree of difference between a natural food and its GM alternative before its 'substance' ceases to be acceptably 'equivalent' is not defined anywhere, nor has an exact definition been agreed by legislators. It is exactly this vagueness that makes the concept useful to industry but unacceptable to the consumer..."

"Substantial equivalence is a pseudo-scientific concept because it is a commercial and political judgment masquerading as if it were scientific. It is, moreover, inherently anti-scientific because it was created primarily to provide an excuse for not requiring biochemical or toxicological tests."

– Millstone E, Brunner E, Mayer S. Beyond "substantial equivalence". *Nature*. 1999; 401(6753): 525–526.¹⁶

The US FDA's approach to assessing the safety of GM crops and foods is based on the concept of substantial equivalence, which was first put forward by the Organisation for Economic Cooperation and Development (OECD), a body dedicated not to protecting public health but to facilitating international trade.¹⁷

Substantial equivalence assumes that if a GMO contains similar amounts of a few basic components such as protein, fat, and carbohydrate as its non-GM counterpart, then the GMO is substantially equivalent to the non-GMO and no compulsory safety testing is required.

Claims of substantial equivalence for GM foods are widely criticized as unscientific by independent researchers.^{18,19,20,21} A useful analogy is that of a BSE-infected cow and a healthy cow. They are substantially equivalent to one another, in that their chemical composition is the same. The only difference is in the shape of a minor component

of a protein (prion), a difference that would not be picked up by a substantial equivalence assessment. Yet few would claim that eating a BSE-infected cow is as safe as eating a healthy cow.

When claims of substantial equivalence have been independently tested, they have been found to be untrue. Using the latest molecular analytical methods, GM crops have been shown to have a different composition to their non-GM counterparts. This is true even when the two crops are grown under the same conditions, at the same time and in the same location – meaning that the changes are not due to different environmental factors but to the genetic modification.

Examples include:

- GM soy had 12–14% lower amounts of cancer-fighting isoflavones than non-GM soy.²²
- Canola (oilseed rape) engineered to contain vitamin A in its oil had much reduced vitamin E and an altered oil-fat composition, compared with non-GM canola.²³
- Experimental GM rice varieties had unintended major nutritional disturbances compared with non-GM counterparts, although they were grown side-by-side in the same conditions. The structure and texture of the GM rice grain was affected and its nutritional content and value were dramatically altered. The authors said that their findings “provided alarming information with regard to the nutritional value of transgenic rice” and showed that the GM rice was not substantially equivalent to non-GM.²⁴
- Experimental GM insecticidal rice was found to contain higher levels of certain components (notably sucrose, mannitol, and glutamic acid) than the non-GM counterpart. These differences were shown to have resulted from the genetic manipulation rather than environmental factors.²⁵
- Commercialised MON810 GM maize had a markedly different profile in the types of proteins it contained compared with the non-GM counterpart when grown under the same conditions.²¹

GM crops also have different effects from their non-GM counterparts when fed to animals (see 3.1.1).

2.1.3. The US government is not impartial regarding GM crops

The US government is not an impartial authority on GM crops. In fact, it has a policy of actively promoting them.²⁶ Through its embassies and agencies such as the US Department of Agriculture (USDA), the US government pressures national governments around the world to accept GM crops. This has been made clear in a series of diplomatic cables disclosed by Wikileaks, which reveal that:

- The US embassy in Paris recommended that the US government launch a retaliation strategy against the EU that “causes some pain” as punishment for Europe’s reluctance to adopt GM crops.²⁷
- The US embassy in Spain suggested that the US government and Spain should draw up a joint strategy to help boost the development of GM crops in Europe.²⁸
- The US State Department is trying to steer African countries towards acceptance of GM crops.^{29,30}

This strategy of exerting diplomatic pressure on national governments to adopt GM crops is undemocratic as it interferes with their ability to represent the wishes of their citizens. It is also inappropriate to use US taxpayers’ money to promote products owned by individual corporations.

2.1.4. The regulatory process in Europe and the rest of the world

“I suggest to biotechnology companies that they publish results of studies on the safety of GM foods in international peer-reviewed journals. The general population and the scientific community cannot be expected to take it on faith that the results of such studies are favourable. Informed decisions are made on the basis of experimental data, not faith.”

– Domingo JL. Health risks of GM foods: Many opinions but few data. *Science*. 2000; 288(5472): 1748–1749.³¹

Many governments, including those of the EU, Japan, Australia, and New Zealand, have an

agency that assesses the safety of GM crops. Based on its assessment, the agency recommends approval or rejection of the crop for use in food or animal feed. The final decision is made by the government.

In Europe, the relevant agency is the European Food Safety Authority (EFSA). Typically the EU member states fail to agree on whether to approve a GM crop, with most voting not to approve it, but the vote does not achieve the “qualified majority” required to reject the GMO. The decision passes to the European Commission, which ignores the desires of the simple majority of the member states and approves the GMO.

Worldwide, safety assessments of GMOs by government regulatory agencies are not scientifically rigorous. As in the US, they do not carry out or commission their own tests on the GM crop. Instead, they make decisions regarding the safety of the GMO based on studies commissioned by the very same companies that stand to profit from the crop’s approval.

The problem with this system is that industry studies have an inbuilt bias. Published reviews evaluating studies assessing the safety/hazards of various products or technologies have shown that industry-sponsored or industry-affiliated studies are more likely to reach a favourable conclusion about the safety of the product than independent (non-industry-affiliated) studies. The most notorious example is industry studies on tobacco, which succeeded in delaying regulation for decades by sowing confusion about the health effects of smoking and passive smoking.³² But a similar bias has been found in studies on other products, including pharmaceuticals^{33,34} and mobile phones.³⁵

Studies on GM crops and foods are no exception. Two published reviews of the scientific literature show that industry-sponsored or – affiliated studies are more likely than independent studies to claim safety for GMOs.^{36,37}

Another problem is the frequently unpublished status of the studies that companies submit to regulatory agencies. The fact that they are not published means that they are not readily available for scrutiny by the public or independent scientists.

Unpublished studies fall into the category of so-called “grey literature” – unpublished documents of unknown reliability.

Such grey literature stands in stark contrast with the gold standard of science, peer-reviewed publication. The peer-reviewed publication process, while far from perfect, is the best method that scientists have come up with to ensure reliability. Its strength lies in a multi-step quality control process:

- The editor of the journal sends the study to qualified scientists (“peers”) to evaluate. They give feedback, including any suggested revisions, which are passed on to the authors of the study.
- Based on the outcome of the peer review process, the editor publishes the study, rejects it, or offers to publish it with revisions by the authors.
- Once the study is published, it can be scrutinised and repeated (replicated) by other scientists. This repeat-testing is the cornerstone of scientific reliability, because if other scientists were to come up with different findings, this would challenge the findings of the original study.

The lack of availability of industry studies in the past has resulted in the public being deceived over the safety of GMOs. For example, industry’s raw data on Monsanto’s GM Bt maize variety MON863 (approved in the EU in 2005) were only forced into the open through court action by Greenpeace. Then independent scientists at the France-based research organisation CRIIGEN analysed the raw data and found that Monsanto’s own feeding trial on rats revealed serious health effects – including liver and kidney toxicity – that had been hidden from the public.^{38,39}

Since this case and perhaps as a result of it, transparency has improved in Europe and the public can obtain industry toxicology data on GMOs from EFSA on request. Only a small amount of information, such as the genetic sequence of the GMO, can be kept commercially confidential.⁴⁰

Similarly, the Australian and New Zealand food safety agency FSANZ makes industry toxicology

data on GMOs available on the Internet. However, in the US, significant portions of the data submitted to regulators are classified as “commercially confidential” and are shielded from public scrutiny.⁴¹

2.1.5. Europe’s comparative safety assessment: Substantial equivalence by another name

Europe’s GMO safety assessment process is still evolving. The European Food Safety Authority (EFSA) is in danger of following the US FDA in adopting the concept of substantial equivalence in its GM food assessments – but under another name. EFSA does not use the discredited term “substantial equivalence” but has replaced it with another term with the same meaning: “comparative safety assessment”.

The change of name was suggested in a 2003 paper on risk assessment of GM plants.⁴² The paper was co-authored by the chair of EFSA’s GMO Panel, Harry Kuiper, with Esther Kok. In 2010 Kok joined EFSA as an expert on GMO risk assessment.⁴³ In their paper, Kuiper and Kok freely admitted that the concept of substantial equivalence remained unchanged and that the purpose of the name change was in part to deflect the “controversy” that had grown up around the term.⁴²

At the same time that Kuiper and Kok published their 2003 paper, they were part of a task force of the industry-funded International Life Sciences Institute (ILSI), that was working on re-designing GMO risk assessment.⁴⁴ In 2004 Kuiper and Kok co-authored an ILSI paper on the risk assessment of GM foods, which defines comparative safety assessment. The other co-authors include representatives from GM crop companies that sponsor ILSI, including Monsanto, Bayer, Dow, and Syngenta.⁴⁵

EFSA has followed ILSI’s suggestion of treating the comparative safety assessment as the basis for GM safety assessments. EFSA has promoted the concept in its guidance documents on assessment of environmental risks of GM plants⁴⁶ and of risks posed by food and feed derived from GM animals,⁴⁷ as well as in a peer-reviewed paper on the safety assessment of GM plants, food and feed.⁴⁸

In 2012, the EU Commission incorporated

the industry- and EFSA-generated concept of the comparative safety assessment into its draft legislation on GM food and feed.⁴⁹

A major problem with the comparative safety assessment is that, as the name suggests, the authorities are beginning to treat it as a safety assessment in itself, rather than as just the first in a series of mandatory steps in the assessment process. In other words, EFSA and the EU Commission are moving towards a scenario in which GM crops and foods that pass this extremely weak initial screening may not be subjected to further rigorous testing.

2.1.6. GM foods would not pass an objective comparative safety assessment

The comparative safety assessment is a weak test of safety. Yet if it were applied objectively, GM crops and foods would not pass even this stage of the risk assessment. This is because as is explained above (2.1.2), many studies on GM crops show that they are not substantially equivalent to the non-GM counterparts from which they are derived. There are often significant differences in the levels of certain nutrients and types of proteins, as well as unexpected toxins or allergens.

GM proponents have sidestepped this problem by widening the range of comparison. Adopting a method originally used by Monsanto in an analysis of its GM soy,^{50,51} they no longer restrict the comparator to the GM plant and the genetically similar (isogenic) non-GM line, but recommend as comparators a range of non-isogenic varieties that are grown at different times and in different locations. Some of this “historical” data even dates back to before World War II.⁵²

ILSI has created a database of such published data, including data on unusual varieties that have untypically high or low levels of certain components. EFSA experts use this industry database to compare the composition of the GM plant with its non-GM counterparts in GMO risk assessments.^{44,53}

If, on the basis of this “comparative safety assessment”, EFSA experts judge the GM crop to be equivalent to its non-GM counterpart, it is assumed to be as safe as the non-GM variety.^{44,54}

Further rigorous testing is not required, so unexpected changes in the GM crop are unlikely to be identified. Also, testing for interactions between the genome of the GM crop and the environment is not required.

However, the degree of similarity that a GM plant needs to have to non-GM counterparts in order to pass this comparative safety assessment has never been defined. A comparative assessment of a GM plant often reveals significant differences in its composition that are outside the ranges of other non-GM varieties, including historical varieties. But even in these extreme cases, according to scientists who have served on regulatory bodies, the differences are often dismissed as “biologically irrelevant” (see 3.1.2).⁵²

Independent scientists have heavily criticised substantial equivalence and comparative safety assessment as the basis of safety assessments of GM crops.^{6,16,52,55}

2.1.7. Weakening comparative assessment further by widening the range of comparison

The comparative safety assessment is itself a flawed basis for assessing GMO safety. Yet recent developments have further weakened this already inadequate method.

An EU Directive on the deliberate release of GMOs requires that the comparator against which the GMO should be assessed for safety should be “the non-modified organism from which it is derived”.⁵⁶ The EU regulation on GM food and feed agrees that the comparator should be the non-GM counterpart.⁵⁷

These rules ensure that the GM crop or food is compared with its genetically similar (isogenic) non-GM counterpart. The comparator will have the same genetic background, but without the GM transformation. So the comparison is correctly designed to find changes caused by the genetic modification process – which should be the purpose of a GMO safety assessment.

Historically, EFSA has followed this principle in its Guidances and Opinions. Yet in a Guidance published in late 2011, EFSA departed from its past practice and EU legislative requirements and broadened the range of acceptable comparators.

EFSA even proposed to allow the use of GM plants, rather than the usual non-GM isogenic line, as comparators for stacked events (crops containing multiple GM traits) and concluded that in some cases plants from different species might be accepted as comparators.⁵⁸ EFSA’s new approach is in line with industry’s practices.^{50,51} But whether it complies with EU legislation is questionable.

More importantly, the approach of comparing a GM crop with unrelated or distantly related varieties grown at different times and in different locations is scientifically flawed. In order to determine any unintended disruption to gene structure and function and consequent biochemical composition brought about by the GM transformation process, the only valid comparator is the non-GM isogenic line, when the two have been grown side-by-side at the same time. This serves to minimize variables external to the GM transformation process. Thus any changes seen are likely to be caused by the GM process and not some other factor. In contrast, comparisons with unrelated or distantly related varieties grown at different times and in different locations introduce and increase external variables and serve to mask rather than highlight the effects of the GM transformation.

In parallel with the trend of widening the range of comparison in the comparative assessment of a GM plant’s composition, industry and regulators have adopted a similar scientifically invalid approach to assessing the health effects of a GMO in animal feeding trials. In these cases, they dismiss statistically significant changes seen in the animals fed the GMO as compared with those fed a non-GM diet as “not biologically meaningful” or “within the range of biological variation” (see 3.1.2–3.1.4 for a detailed discussion of this practice and how it places public health at risk).

These practices run counter to good scientific method and could be described as a way of “disappearing” inconvenient findings of the experiment in question by bringing in data from other experiments until the convenient answer (that the GMO is no different from its non-GM counterpart) is reached.

2.1.8. GM corporations and the US government have designed the GMO regulatory process around the world

The agricultural biotechnology corporations have lobbied long and hard on every continent to ensure that weak assessment models are the norm. Often working through the US government or nonprofit groups, they have provided biosafety workshops and training courses to smaller countries that are attempting to grapple with regulatory issues surrounding GM crops. The result, according to critics, has been models for safety assessment that favour easy approval of GMOs without rigorous assessment of health or environmental risks.

For example, a report by the African Centre for Biosafety (ACB) described how the Syngenta Foundation, a nonprofit organization set up by the agricultural biotechnology corporation Syngenta, worked on “a three-year project for capacity building in biosafety in sub-Saharan Africa”. The Syngenta Foundation’s partner in this enterprise was the Forum for Agricultural Research in Africa (FARA), a group headed by people with ties to Monsanto and the US government.

The ACB identified the Syngenta Foundation/FARA project as part of an “Africa-wide harmonisation of biosafety policies and procedures” that will “create an enabling environment for the proliferation of GMOs on the continent, with few biosafety checks and balances”.⁵⁹

In India, the US Department of Agriculture led a “capacity building project on biosafety” to train state officials in the “efficient management of field trials of GM crops”⁶⁰ – the first step towards full-scale commercialisation. And in 2010, a scandal erupted when a report from India’s national science academies recommending release of GM Bt brinjal (eggplant/aubergine) for cultivation was found to contain 60 lines of text copy-pasted almost word for word from a biotechnology advocacy newsletter – which itself contained lines extracted from a GM industry-supported publication.⁶¹

2.1.9. Independent research on GM foods is suppressed

“Unfortunately, it is impossible to verify that genetically modified crops perform as advertised. That is because agritech companies have given themselves veto power over the work of independent researchers... Research on genetically modified seeds is still published, of course. But only studies that the seed companies have approved ever see the light of a peer-reviewed journal. In a number of cases, experiments that had the implicit go-ahead from the seed company were later blocked from publication because the results were not flattering... It would be chilling enough if any other type of company were able to prevent independent researchers from testing its wares and reporting what they find... But when scientists are prevented from examining the raw ingredients in our nation’s food supply or from testing the plant material that covers a large portion of the country’s agricultural land, the restrictions on free inquiry become dangerous.”

– Editorial, Scientific American⁶²

The problem of basing the regulatory process for GM crops on industry studies could be solved by considering independent (non-industry-affiliated) science in the risk assessment. But independent studies on GM foods and crops are rare, because independent research on GM crop risks is not supported financially – and because industry uses its patent-based control of GM crops to restrict independent research. Research that has been suppressed includes assessments of health and environmental safety and agronomic performance of GM crops.⁴¹ Permission to study GM crops is withheld or made so difficult to obtain that research is effectively blocked. For example, researchers are often denied access to commercialised GM seed and the non-GM isogenic lines.

Even if permission to carry out research is given, GM companies typically retain the right to block publication.^{63,64} The industry and its allies

also use a range of public relations strategies to discredit and silence scientists who publish research that is critical of GM crops.⁶⁵

In 2009, 26 scientists took the unusual step of making a formal complaint to the US Environmental Protection Agency. They wrote, "No truly independent research can be legally conducted on many critical questions involving these crops."⁶⁶ An editorial in *Scientific American* reported, "Only studies that the seed companies have approved ever see the light of a peer-reviewed journal. In a number of cases, experiments that had the implicit go-ahead from the seed company were later blocked from publication because the results were not flattering."⁶²

In response, a new licensing agreement for researchers on GM crops was reached between US Department of Agriculture (USDA) scientists and Monsanto in 2010.⁶⁷ However, this agreement is still restrictive, which is not surprising given that the US Department of Agriculture has a policy of supporting GM crops and the companies that produce them (see 2.1.3). Whether this new policy will make a real difference remains to be seen.

The limited amount of independent research that is conducted on GM foods and crops is often ignored or dismissed by regulatory agencies. In addition, findings of harm, whether in independent or industry studies, are explained away as not "biologically relevant" (see 3.1.2).

2.1.10. Researchers who publish studies that find harm from GM crops are attacked

There is a well-documented history of orchestrated attacks by GM proponents on researchers whose findings show problems with GM crops and foods. The GM proponents adopt a variety of tactics, including criticizing the research as "bad science", finding any small flaw or limitation (which almost all studies have) and claiming that this invalidates the findings, and using personal (ad hominem) attacks against the researcher.

Scientific debate is nothing new and is to be welcomed: it is the way that science progresses. A researcher publishes a study; another researcher thinks that certain aspects could have been done better and repeats it with the desired

modifications; these findings in turn are added to the database of knowledge for future researchers to build on. But the trend of attempting to silence or discredit research that finds problems with GMOs is unprecedented and has grown in parallel with the commercialization of GM crops.

Unlike in traditional scientific debate, too often the criticism does not consist of conducting and publishing further research that could confirm or refute the study in question. Instead, the critics try to "shout down" the study on the basis of claims that are spurious or not scientifically validated.

There are numerous cases of this pattern, of which the following are just a few examples.

Gilles-Eric Séralini

In 2007 Professor Gilles-Eric Séralini, researcher in molecular biology at the University of Caen and president of the independent research institute CRIIGEN, and his research team published a re-analysis of a Monsanto 90-day rat feeding study that the company had submitted in support of application for the approval of its GM maize MON863. Approval was granted for food and feed in the EU in 2005. Monsanto tried to keep the feeding trial data secret, claiming commercial confidentiality, but it was forced into the open by a court ruling in Germany.

Séralini's re-analysis of the Monsanto data showed that the rats fed GM maize had reduced growth and signs of liver and kidney toxicity. Séralini concluded that it could not be assumed that the maize was safe and asked for such studies performed for regulatory purposes to be extended beyond 90 days so that the consequences of the initial signs of toxicity could be investigated.³⁸

After Séralini and his team published this and other papers showing harmful effects from GM crops and the glyphosate herbicide used with GM Roundup Ready crops, he was subjected to a vicious smear campaign. The smears appeared to come from the French Association of Plant Biotechnologies [Association Française des Biotechnologies Végétale] (AFBV), chaired by Marc Fellous.

Séralini believed the researchers Claude Allegre, Axel Kahn, and Marc Fellous were behind

the defamation and intimidation campaign in France. He sued Fellous for libel, arguing that the campaign had damaged his reputation, reducing his opportunities for work and his chances of getting funding for his research.

During the trial, it was revealed that Fellous, who presented himself as a “neutral” scientist without personal interests, and who accused those who criticise GMOs as “ideological” and “militant”, owned patents through a company based in Israel. This company sells patents to GM corporations such as Aventis. Séralini’s lawyer showed that other AFBV members also have links with agribusiness companies.

The court found in Séralini’s favour. The judge sentenced the AFBV to a fine on probation of 1,000 Euros, 1 Euro for compensation (as requested by Séralini) and 4,000 Euros in court fees.⁶⁸

Emma Rosi-Marshall

In 2007 Emma Rosi-Marshall’s team published research showing that Bt maize material got into streams in the American Midwest and that when fed to non-target insects, it had harmful effects. In a laboratory feeding study, the researchers fed Bt maize material to the larvae of the caddis fly, an insect that lives near streams. The larvae that fed on the Bt maize debris grew half as fast as those that ate debris from non-GM maize. And caddis flies fed high concentrations of Bt maize pollen died at more than twice the rate of caddis flies fed non-Bt pollen.⁶⁹

Rosi-Marshall was subjected to vociferous criticism from GM proponents, who said that her paper was “bad science”. They complained that the study did not follow the type of protocol usual for toxicological studies performed for regulatory purposes, using known doses – even though such protocols are extremely limited and are increasingly coming under fire from independent scientists for being unable to reliably detect risks (see “Jorg Schmidt...” below). Rosi-Marshall replied that her study allowed the caddis flies to eat as much as they wanted, as they would in the wild.⁶⁵

The critics also objected that laboratory findings did not give accurate information about

real field conditions. Rosi-Marshall responded that only in the laboratory is it possible to control conditions tightly enough to allow firm conclusions.

Henry I. Miller of the pro-free-market think tank, the Hoover Institution, co-authored and published an opinion piece in which he called the publication of Rosi-Marshall’s study an example of the “anti-science bias” of scientific journals and accused the authors of scientific “misconduct”. According to Miller, the authors’ main crime was failing to mention in their paper another study that concluded that Bt maize pollen did not affect the growth or mortality of filter-feeding caddis flies.⁷⁰ Rosi-Marshall responded that she had not cited these findings because they had not been peer-reviewed and published at the time and because they focused on a different type of caddis fly, with different feeding mechanisms from the insects in her study.⁶⁵

Rosi-Marshall and her co-authors stand by their study. In a statement, they said, “The repeated, and apparently orchestrated, ad hominem and unfounded attacks by a group of genetic engineering proponents has done little to advance our understanding of the potential ecological impacts of transgenic corn.”⁶⁵

Jorg Schmidt, Angelika Hilbeck and colleagues

A laboratory study (Schmidt, 2009) showed that GM Bt toxins increased the mortality of ladybird larvae that fed on it, even at the lowest concentrations tested. The study showed that claims that Bt toxins are only harmful to a limited number of insect pests and their close relatives are false. Bt toxins were found to harm non-target organisms – ladybirds – that are highly beneficial to farmers.⁷¹ Ladybirds devour pests such as aphids and disease-causing fungi.

Based on this study and over 30 others, in 2009 Germany banned the cultivation of Monsanto’s Bt maize MON810, which contains one of the Bt toxins that Schmidt’s team found to be harmful.⁷¹ This triggered two opinion pieces that questioned the scientific basis of the German ban^{72,73} and one experimental study (Alvarez-Alfageme et al, 2011) that claimed to disprove the adverse effects of the

Bt toxins on ladybird larvae. The authors of the experimental study found no ill effects on ladybird larvae fed on Bt toxins and said that the “apparent harmful effects” found by Schmidt were due to “poor study design and procedures”.⁷⁴

The following year a study (Hilbeck et al, 2012) by some of the same authors as Schmidt’s study was published, confirming its findings. This study too found that Bt toxins increased the mortality of ladybird larvae. The researchers addressed the main criticisms raised by Alvarez-Alfageme and gave reasons why that study had found no effect. The main reason given was that Alvarez-Alfageme had chosen to expose the ladybird larvae only in a single dose fed over 24 hours and then allowed them to recover by feeding them Bt toxin-free food.⁷⁵ Schmidt, on the other hand, had exposed the larvae continuously over 9–10 days⁷⁵ – arguably a far more realistic scenario.

In a separate commentary on the controversy, some of the authors of the confirmatory study criticised the confrontational tone, unscientific elements, and “concerted nature” of the three studies that attacked Schmidt’s initial findings. The authors noted that the “dogmatic ‘refutations’” and “deliberate counter studies” that routinely appear in response to peer-reviewed results on potential harm from GMOs were also a feature of the debate on risks of tobacco, asbestos, the controversial food packaging chemical bisphenol A, and mobile phones.

The authors also criticised the “double standards” that led the European Food Standards Authority (EFSA) to apply excessive scrutiny to papers that draw attention to the risks of GM crops while overlooking obvious deficiencies in studies that assert the safety of GM crops.

For example, Hilbeck and co-authors pointed to major deficiencies in a routine biosafety test performed for regulatory purposes in the approval process of GM Bt crops. The test is supposed to look for toxic effects on non-target insects. In the test protocol, larvae of the green lacewing, a beneficial pest predator insect, are given moth eggs coated in Bt toxin to eat.

However, as Hilbeck and her team noted, lacewing larvae feed by piercing the eggs and sucking out the contents – meaning that they are

“truly incapable of ingesting compounds deposited on the exterior of the eggs”.

In other words, this supposed biosafety test is incapable of detecting toxic effects even when they occur. This deficiency has even been noted by the US Environmental Protection Agency. And yet, the authors noted, no criticisms of these clearly inappropriate tests were levelled by Alvarez-Alfageme and the other critics of Schmidt’s paper.⁷⁶

Arpad Pusztai

On 10 August 1998 the GM debate changed forever with the broadcast of a current affairs documentary on British television about GM food safety. The programme featured a brief but revealing interview with the internationally renowned scientist Dr Arpad Pusztai about his research into GM food safety. Pusztai talked of his findings that GM potatoes had harmed the health of laboratory rats. Rats fed GM potatoes showed excessive growth of the lining of the gut similar to a pre-cancerous condition and toxic reactions in multiple organ systems.

Pusztai had gone public with his findings prior to publication for reasons of the public interest, particularly as the research had been funded by the British taxpayer. He gave his television interview with the full backing of his employers, the Rowett Institute in Scotland.

After the broadcast aired, a political storm broke. Within days, Pusztai had been gagged and fired by the Rowett, his research team was disbanded, and his data was confiscated. His telephone calls and emails were diverted. He was subjected to a campaign of vilification and misrepresentation by pro-GM scientific bodies and individuals in an attempt to discredit him and his research.^{77,78,79,80,81}

What caused the Rowett’s turnaround? It was later reported that there had been a phone call from Monsanto to the then US president Bill Clinton, from Clinton to the then UK prime minister Tony Blair, and from Blair to the Rowett.⁷⁷

Untruths and misrepresentations about Pusztai’s research continue to be circulated by GM proponents. These include claims that no GM potatoes were fed at all and that the experiment

lacked proper controls. Both claims are easily shown to be false by a reading of the study, which subsequently passed peer-review by a larger-than-usual team of reviewers and was published in *The Lancet*.⁸²

Criticisms of the study design are particularly unsound because it was reviewed by the Scottish Office and won a GBP 1.6 million grant over 28 other competing designs. According to Pusztai, it was also reviewed by the BBSRC, the UK's main public science funding body.⁷⁷ Even Pusztai's critics have not suggested that he did not follow the study design as it was approved – and if his study had lacked proper controls, the BBSRC and the Scottish Office would have faced serious questions.

Interestingly, one of the critics who claimed that Pusztai's experiment lacked proper controls⁸³ had previously co-authored and published with Pusztai a study on GM peas with exactly the same design.⁸⁴ In fact, the only notable difference between this study and Pusztai's GM potatoes study was the result: the pea study had concluded that the GM peas were as safe as non-GM peas, whereas the potato study had found that the GM potatoes were unsafe.

Pusztai's GM potato research continues to be cited in the peer-reviewed literature as a valid study.

Ignacio Chapela

In 2001 biologist Ignacio Chapela and his colleague David Quist tested native varieties of Mexican maize and found that they had been contaminated by GM genes.⁸⁵ The findings were of concern because at the time, Mexico had banned the planting of GM maize out of concern for its native varieties. Mexico is the biological centre of origin for maize and has numerous varieties adapted to different localities and conditions. The GM contamination came from US maize imports.

Chapela started talking to various government officials, who, he felt, needed to know. As his findings were approaching publication in the journal *Nature*, events took a sinister turn. Chapela said he was put into a taxi and taken to an empty building in Mexico City, where a senior government official threatened him and his family.

Chapela had the impression that he was trying to prevent him from publishing his findings.^{86,77,87}

Chapela went ahead with publication. Immediately, a virulent smear campaign against him and his research was launched, with most of the attacks appearing on a pro-GM website called AgBioWorld. While AgBioWorld has many scientists among its subscribers, the attacks were not fuelled by scientists, but by two people called Mary Murphy and Andura Smetacek. Murphy and Smetacek accused Chapela of being more of an activist than a scientist. Smetacek suggested that Chapela's study was part of an orchestrated campaign in collusion with "fear-mongering activists (Greenpeace, Friends of the Earth)".⁷⁷

Murphy and Smetacek successfully shifted the focus from the research findings onto the messenger. The journal *Science* noted the "widely circulating anonymous emails" accusing researchers, Ignacio Chapela and David Quist, of "conflicts of interest and other misdeeds".⁸⁸ Some scientists were alarmed at the personal nature of the attacks. "To attack a piece of work by attacking the integrity of the workers is a tactic not usually used by scientists," wrote one.⁸⁹

Investigative research by Jonathan Matthews of the campaign group GMWatch and the journalist Andy Rowell traced Murphy's attacks to an email address owned by Bivings Woodell, part of the Bivings Group, a PR company with offices in Washington, Brussels, Chicago and Tokyo. Bivings developed "internet advocacy" campaigns for corporations and had assisted Monsanto with its internet PR since 1999, when the biotech company identified that the internet had played a significant part in its PR problems in Europe.⁷⁷

Attempts to uncover the identity of Murphy and Smetacek led nowhere, leading the journalist George Monbiot to write an article about the affair entitled, "The fake persuaders: Corporations are inventing people to rubbish their opponents on the internet".⁹⁰

Chapela's finding that GM genes had contaminated native Mexican maize was confirmed by tests carried out by the Mexican government, as reported in Chapela's published study and in a separate article.^{85,91}

Conclusion to Section 2

The regulatory regime for GM crops and foods is weakest in the US, the origin of most such crops, but is inadequate in most regions of the world, including Europe. The US regime assumes that GM crops are safe if certain basic constituents of the GM crop are “substantially equivalent” to those of their non-GM counterparts – a term that has not been legally or scientifically defined. The European regime applies the same concept but terms it “comparative safety assessment”. But often, when a scientific comparison of a GM crop and its non-GM counterpart is undertaken, the assumption of substantial equivalence is shown to be false, as unexpected differences are found.

No regulatory regime anywhere in the world requires long-term or rigorous safety testing of GM crops and foods. Regulatory assessments are based on data provided by the company that is applying to commercialise the crop – the same company that will profit from a positive assessment of its safety.

The regulatory procedure for GM crops is not

independent or objective. The GM crop industry, notably through the industry-funded group, the International Life Sciences Institute (ILSI), has heavily influenced the way in which its products are assessed for safety. ILSI has successfully promoted ideas such as the comparative safety assessment, which maximize the chances of a GMO avoiding rigorous safety testing and greatly reduce industry’s costs for GMO authorisations.

The GM crop industry restricts access to its products by independent researchers, so their effects on human and animal health and the environment cannot be properly investigated. Independent researchers who have published papers containing data that is not supportive of GMOs have been attacked by the industry and pro-GMO groups and individuals. This has had a chilling effect on the debate about GM crops and has compromised scientific progress in understanding their effects.

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3. HEALTH HAZARDS OF GM FOODS

3.1 Myth: GM foods are safe to eat

Truth: Studies show that GM foods can be toxic or allergenic

“Most studies with GM foods indicate that they may cause hepatic, pancreatic, renal, and reproductive effects and may alter haematological [blood], biochemical, and immunologic parameters, the significance of which remains to be solved with chronic toxicity studies.”

– Dona A, Arvanitoyannis IS. Health risks of genetically modified foods. *Crit Rev Food Sci Nutr.* 2009; 49: 164–175¹

There are three possible sources of adverse health effects from GM foods:

- The GM gene product – for example, the Bt toxin in GM insecticidal crops – may be toxic or allergenic
- The GM transformation process may produce mutagenic effects, gene regulatory effects, or effects at other levels of biological structure and function that result in new toxins or allergens and/or disturbed nutritional value
- Changes in farming practices linked to the use of a GMO may result in toxic residues – for example, higher levels of crop contamination with the herbicide Roundup are an inevitable result of using GM Roundup Ready® crops (see Sections 4, 5).

Evidence presented below and in Sections 4 and 5 suggests that problems are arising from all three sources – throwing into question GM proponents’ claims that GM foods are as safe as their non-GM counterparts.

3.1.1. Feeding studies on laboratory and farm animals

Feeding studies on laboratory and farm animals show that GM foods can be toxic or allergenic:

Section at a glance

- ▶ Peer-reviewed studies have found harmful effects on the health of laboratory and livestock animals fed GMOs. Effects include toxic and allergenic effects and altered nutritional value.
 - ▶ Most animal feeding studies on GMOs have only been short-term or medium-term in length. What is needed are long-term and multi-generational studies on GMOs to see if the worrying changes commonly reported in short- and medium-term studies develop into serious disease. Such studies are not required by government regulators.
 - ▶ Industry and regulators dismiss findings of harm in animal feeding trials on GMOs by claiming they are “not biologically significant” or “not biologically relevant” – scientifically meaningless terms that have not been properly defined.
 - ▶ No GM nutritionally enhanced (biofortified) foods are available on the market. In contrast, conventional plant breeding has successfully and safely produced many biofortified foods.
 - ▶ The most-hyped GM nutritionally enhanced food, Golden Rice, aimed at combating vitamin A deficiency, has wasted millions in development funds – yet has not been proven safe to eat and is still not ready for the market. Meanwhile, proven and inexpensive solutions to vitamin A deficiency are available and only need proper funding to be more widely applied.
 - ▶ Conventional plant breeding has successfully and safely produced many biofortified foods.
- Rats fed GM tomatoes developed stomach lesions (sores or ulcers).^{2,3} This tomato, Calgene’s Flavr Savr, was the first commercialized GM food.
 - Mice fed GM peas (not subsequently commercialized) engineered with an insecticidal

protein (alpha-amylase inhibitor) from beans showed a strong, sustained immune reaction against the GM protein. Mice developed antibodies against the GM protein and an allergic-type inflammation response (delayed hypersensitivity reaction). Also, the mice fed on GM peas developed an immune reaction to chicken egg white protein. The mice did not show immune or allergic-type inflammation reactions to either non-GM beans naturally containing the insecticide protein, to egg white protein fed with the natural protein from the beans, or to egg white protein fed on its own. The findings showed that the GM insecticidal protein acted as a sensitizer, making the mice susceptible to developing immune reactions and allergies to normally non-allergenic foods. This is called immunological cross-priming. The fact that beans naturally containing the insecticidal protein did not cause the effects seen with the peas that expressed the transgenic insecticidal protein indicated that the immune responses of the mice to the GM peas were caused by changes in the peas brought about by the genetic engineering process. In other words, the insecticidal protein was changed by the GM process so that it behaved differently in the GM peas compared with its natural form in the non-GM beans – and the altered protein from the GM peas stimulated a potent immune response in the mice.⁴

- Mice fed GM soy showed disturbed liver, pancreas and testes function. The researchers found abnormally formed cell nuclei and nucleoli in liver cells, which indicates increased metabolism and potentially altered patterns of gene expression.^{5,6,7}
- Mice fed GM soy over their lifetime (24 months) showed more acute signs of ageing in the liver than the control group fed non-GM soy.⁸
- Rabbits fed GM soy showed enzyme function disturbances in kidney and heart.⁹
- Female rats fed GM soy showed changes in uterus and ovaries compared with controls fed organic non-GM soy or a non-soy diet. Certain ill effects were found with organic soy as well as GM soy, showing the need for further investigation into the effects of soy-based diets

(GM and non-GM) on reproductive health.¹⁰

- A review of 19 studies (including industry's own studies submitted to regulators in support of applications to commercialise GM crops) on mammals fed with commercialised GM soy and maize that are already in our food and feed chain found consistent toxic effects on the liver and kidneys. Such effects may be markers of the onset of chronic disease, but long-term studies, in contrast to these reported short- and medium-term studies, would be required to assess this more thoroughly. Unfortunately, such long-term feeding trials on GMOs are not required by regulators anywhere in the world.¹¹
- Rats fed insecticide-producing MON863 Bt maize grew more slowly and showed higher levels of certain fats (triglycerides) in their blood than rats fed the control diet. They also suffered problems with liver and kidney function. The authors stated that it could not be concluded that MON863 maize is safe and that long-term studies were needed to investigate the consequences of these effects.¹²
- Rats fed GM Bt maize over three generations suffered damage to liver and kidneys and alterations in blood biochemistry.¹³
- A re-analysis of Monsanto's own rat feeding trial data, submitted to obtain approval in Europe for three commercialised GM Bt maize varieties, MON863, MON810, and NK603, concluded that the maize varieties had toxic effects on liver and kidneys. The authors of the re-analysis stated that while the findings may have been due to the pesticides specific to each variety, genetic engineering could not be excluded as the cause.¹⁴ The data suggest that approval of these GM maize varieties should be withdrawn because they are not substantially equivalent to non-GM maize and are toxic.
- Old and young mice fed GM Bt maize showed a marked disturbance in immune system cells and in biochemical activity.¹⁵
- Rats fed GM MON810 Bt maize showed clear signs of toxicity, affecting the immune system, liver and kidneys.^{14,15}
- Female sheep fed Bt GM maize over three generations showed disturbances in the functioning of the digestive system, while

their lambs showed cellular changes in the liver and pancreas.¹⁶

- GM Bt maize DNA was found to survive processing and was detected in the digestive tract of sheep. This raises the possibility that the antibiotic resistance gene in the maize could move into gut bacteria, an example of horizontal gene transfer.¹⁷ In this case, horizontal gene transfer could produce antibiotic-resistant disease-causing bacteria (“superbugs”) in the gut.
- Rats fed GM oilseed rape developed enlarged livers, often a sign of toxicity.¹⁸
- Rats fed GM potatoes showed excessive growth of the lining of the gut similar to a pre-cancerous condition and toxic reactions in multiple organ systems.^{19,20}
- Mice fed a diet of GM Bt potatoes or non-GM potatoes spiked with natural Bt toxin protein isolated from bacteria showed abnormalities in the cells and structures of the small intestine, compared with a control group of mice fed non-GM potatoes. The abnormalities were more marked in the Bt toxin-fed group. This study shows not only that the GM Bt potatoes caused mild damage to the intestines but also that Bt toxin protein is not harmlessly broken down in digestion, as GM proponents claim, but survives in a functionally active form in the small intestine and can cause damage to that organ.²¹
- Rats fed GM rice for 90 days had a higher water intake as compared with the control group fed the non-GM isogenic line of rice. The GM-fed rats showed differences in blood biochemistry, immune response, and gut bacteria. Organ weights of female rats fed GM rice were different from those fed non-GM rice. The authors claimed that none of the differences were “adverse”, but they did not define what they mean by “adverse”. Even if they had defined it, the only way to know if such changes are adverse is to extend the length of the study, which was not done. The authors conceded that the study “did not enable us to conclude on the safety of the GM food”.²²
- Rats fed GM Bt rice developed significant differences as compared with rats fed the

non-GM isogenic line of rice. These included differences in the populations of gut bacteria – the GM-fed group had 23% higher levels of coliform bacteria. There were differences in organ weights between the two groups, namely in the adrenals, testis and uterus. The authors concluded that the findings were most likely due to “unintended changes introduced in the GM rice and not from toxicity of Bt toxin” in its natural, non-GM form.²³

- A study on rats fed GM Bt rice found a Bt-specific immune response in the non-GM-fed control group as well as the GM-fed groups. The researchers concluded that the immune response in the control animals was due to their inhaling particles of the powdered Bt toxin-containing feed consumed by the GM-fed group. The researchers recommended that for future tests involving Bt crops, GM-fed and control groups should be kept separate.²⁴ This indicates that animals can be extremely sensitive to very small amounts of GM proteins, so even low levels of contamination of conventional crops with GMOs could be harmful to health.

In these studies, a GM food was fed to one group of animals and its non-GM counterpart was fed to a control group. The studies found that the GM foods were more toxic or allergenic than their non-GM counterparts.

3.1.2. Masking statistical significance through the concept of “biological relevance”

Study findings such as those described above have made it increasingly difficult for GM proponents to continue to claim that there are no differences between the effects of GM foods and their non-GM counterparts – clearly, there are.

To sidestep this problem, the GM industry and its allies have shifted their argument to claim that statistically significant effects, such as those found in the above studies, are not “biologically relevant”.

The concept of biological relevance was initially promoted by the industry-funded group, the International Life Sciences Institute (ILSI), and affiliates to argue against regulatory restrictions

on toxic chemicals.²⁵ But increasingly, it has been extended to the field of GM crops and foods.²⁶ Biological relevance offers a route through which GM proponents can admit that feeding experimental animals a GM diet can cause statistically significant observable effects, but at the same time argue that these effects are not important.

However, this argument is scientifically indefensible. Biological relevance with respect to changes brought about by GM foods has never been properly defined, either scientifically or legally. Most feeding trials on GM foods, including those carried out by industry to support applications for GM crop commercialisation, are not long-term but medium-term studies of only 30–90 days long and therefore cannot thoroughly assess the safety of GMOs.

In order to determine whether changes seen in these medium-term studies are biologically relevant, the researchers would have to:

- Define in advance what “biological relevance” means with respect to effects found from feeding GM crops
- Extend the current study design from a medium-term to a long-term period. In the case of rodent studies, this would be two years – the approximate duration of their life-span¹¹
- Examine the animals closely to see how the changes found in 90-day studies progress – for example, if they disappear or develop into disease or premature death
- Analyze the biological relevance of the changes in light of the researchers’ definition of the term
- Carry out additional reproductive and multigenerational studies to determine effects on fertility and future generations.

Since these steps are not followed in cases where statistically significant effects are dismissed as not “biologically relevant”, assurances of GM food safety founded on this line of argument are baseless.

In parallel with “biological relevance”, a trend has grown of claiming that statistically significant effects of GM feed on experimental animals are not “adverse”.²⁷ However, the term “adverse” is not defined and the experiments are not

extended to check whether changes are the first signs of disease. So again, the term is technically meaningless.

We conclude that GM proponents and regulatory bodies should cease masking findings of statistically significant effects from GM crops through poorly defined and scientifically indefensible concepts.

3.1.3. How misuse of “biological relevance” places public health at risk: Monsanto GM maize study

In 2007 a team led by Professor Gilles-Eric Séralini at the independent research institute CRIIGEN in France published a new analysis of a rat feeding study conducted by Monsanto with one of its GM maize varieties.

The maize, called MON863, was approved for feed and feed in Europe in 2005–2006.²⁸ The maize was approved partly on the basis of the Monsanto study, which, however, could not be scrutinized by independent scientists and the public because the raw data were kept hidden on claimed grounds of commercial confidentiality. Only after court action in Germany forced disclosure of Monsanto’s data could Séralini and associates conduct their analysis.¹²

Séralini’s team found that according to Monsanto’s own data, rats fed GM maize over a 90-day period had signs of liver and kidney toxicity. Also, the GM-fed rats had statistically significant differences in weight from those fed non-GM maize control diets. The GM-fed females had higher concentrations of certain fats in their blood, and excretion of certain minerals was disturbed in GM-fed males.¹²

However, all statistically significant effects found in Monsanto’s study were dismissed by the European Food Safety Authority (EFSA) in its favourable safety assessment of the maize. They claimed that the statistically significant effects were not “biologically meaningful”.^{29,30} EFSA and GM proponents cited differences in response to the GM feed between male and female animals, claiming that toxic effects should be the same in both sex groups.^{11,31,32,33} However, this is scientifically indefensible as toxins with hormone-disrupting properties are

well known to have different effects on males and females.^{34,35}

Séralini commented on the dangerous trend of dismissing statistically significant effects by claiming lack of biological relevance in a 2011 review of the scientific literature assessing the safety of GM crops: “The data indicating no biological significance of statistical effects in comparison to controls have been published mostly by [GM crop development] companies from 2004 onwards, and at least 10 years after these GMOs were first commercialized round the world”. Séralini called the trend a matter of “grave concern”.¹¹

After years of heavy criticism of the “biological relevance” tactic by independent scientists and a member of the European Parliament,^{36,11,37} in late 2011 EFSA issued an Opinion on the relationship between statistical significance and biological relevance.³⁸

But EFSA’s Opinion failed to give a rigorous scientific or legal definition of what makes a statistically significant finding not “biologically relevant”. Instead, it allowed industry to come to its own conclusion on whether changes found in an experiment are “important”, “meaningful”, or “may have consequences for human health”. These are vague concepts for which no measurable or objectively verifiable endpoints are defined. Thus they are a matter of opinion, not science.

Moreover, the lack of a sound definition of biological relevance means that regulators have no strong scientific or legal grounds to disagree with industry’s claim that a statistically significant finding is not biologically relevant. This, in effect, makes GMOs impossible to regulate.

The conclusions of the EFSA Opinion are not surprising, given that it is authored by several affiliates of the industry-funded group, the International Life Sciences Institute (ILSI), including Harry Kuiper³⁹ (also the chair of EFSA’s GMO panel), Josef Schlatter, and Susan Barlow.⁴⁰ Because ILSI is funded by GM crop development companies, allowing ILSI affiliates to write EFSA’s scientific advice on how to assess the safety of GM foods and crops is akin to allowing a student to write his or her own examination paper – or

allowing scientists to review their own papers submitted for publication!

3.1.4 Masking statistical significance through the concept of “normal variation”

Studies often find statistically significant differences in the composition of GM foods compared with their isogenic or near-isogenic non-GM counterparts (isogenic means genetically identical except for the one gene of interest, in this case the genetically modified gene). Studies also find statistically significant differences in animals fed a GM crop variety compared with animals fed the isogenic or near-isogenic variety.

However, GM proponents consistently dismiss these statistically significant differences in the experiment under examination by claiming that they are within the “normal variation range” or “within the range of biological variation”.

This tactic was used in a review of animal feeding studies on GMOs (the review included many of the studies summarised in this report). In spite of the significant differences found in the GM-fed animals, the reviewers used the concept of normal variation to argue that “GM plants are nutritionally equivalent to their non-GM counterparts and can be safely used in food and feed”.²⁶

However, this is scientifically unjustifiable. GM proponents define the “normal range of variation” by collecting values from many different studies carried out across a wide range of dates, using different experimental conditions and measurement methods. The result is a set of numbers that vary widely, but there is no scientific justification for including those numbers in the same dataset. On the contrary, there is much justification for excluding most of the values.

By using a dataset with such an unjustifiably wide range of variation, GM proponents are able to hide the genuine and meaningful differences between the GMO of interest and the valid controls – namely the isogenic or near-isogenic variety.

This is an attempt to minimize statistically significant differences brought about by the

GM process by artificially widening the range of values compared beyond what can be scientifically justified. The practice runs counter to the aim of scientific experiments, which are designed to minimise variables. According to rigorous scientific practice, in any single experiment, the scientist manipulates just one variable in order to test its effect. In this way, any changes that are observed can be traced to a probable single cause.

In an animal feeding trial with GMOs, the manipulated variable is the GMO. One group of animals, the “treated” group, is fed a diet containing the GMO. Another group, the control group, is fed a similar diet, with the only difference being that it has not been subject to genetic modification. All conditions of the experiment outside the GM component of the treated group’s diet must be the same. Within this tightly controlled setup, any changes seen in the treated group are likely to be caused by the GM process.

Therefore, in any experiment to discover the effects of a GMO in an animal feeding trial, the only valid comparator is the control group within that same experiment (the concurrent control).

By comparing the treated group with a wide variety of control groups from other experiments (sometimes called “historical control data”), GM proponents are masking the effects of the GM process or GM diet, as any GM-related changes will disappear in the “noise” of the changes caused by many variables.

3.1.5. Regulators currently do not require long-term tests on GMOs

In order to detect health effects caused over time in humans eating GM foods, long-term (chronic) animal feeding trials are needed. But currently, no long-term tests on GM crops or foods are required by regulatory authorities anywhere in the world. Reproductive and multigenerational tests, which are necessary to discover effects of GM crops or foods on fertility and future generations, are also not required.¹¹

This contrasts with the testing requirements for pesticides or drugs, which are far more stringent. Before a pesticide or drug can be

approved for use, it must undergo one-year, two-year, and reproductive tests on mammals.¹² Yet GM foods escape such testing, in spite of the fact that virtually all commercialised GM foods are engineered either to contain an insecticide or to tolerate being sprayed with large amounts of herbicide, so they are likely to contain significant amounts of pesticides.

The longest tests that are routinely conducted on GM foods for regulatory assessments are 90-day rodent feeding trials, and even these are not compulsory.¹¹ While a 2012 EU draft regulation requests such tests for the time being, the wording is weak and foresees a situation in which they are not required.⁴¹ Also, the type of findings that would trigger a regulatory requirement for such tests has not been specified.⁴²

Such 90-day rodent trials are medium-term (subchronic) tests that correspond to only a few years in terms of human lifespan and are too short to show long-term effects such as organ damage or cancer.⁴³ In addition, too few animals are used in these industry tests to reliably detect harmful effects.

In spite of these serious shortcomings of regulatory tests, statistically significant harmful effects have been found even in industry’s own 90-day rodent feeding trials. The most common effects observed are signs of toxicity in the liver and kidney, which are the major detoxifying organs and the first to show evidence of chronic disease.¹¹

These observations are consistently interpreted by GM proponents and regulators as “not biologically significant” or as “within the range of normal variation”, using the spurious arguments described in Section 3.1.4, above.

3.1.6. Stacked-trait crops are less rigorously tested than single-trait crops

Most GM crops currently on the market and in the approvals pipeline are not single-trait crops but stacked-trait crops. “Stacked-trait” means that several GM traits are combined in one seed. For example, GM SmartStax maize has eight GM traits: six for insect resistance (Bt) and two for tolerance to different herbicides.

Biotech companies have had to resort to

developing multi-trait crops because of the failure of single traits. For example (see Section 5):

- Bt crops have fallen victim to secondary insect pests
- Pests have developed resistance to single Bt toxins
- Weeds have become increasingly resistant to glyphosate, the herbicide that most first-generation GM crops were engineered to tolerate.

Stacked GM crops present more of a regulatory challenge than single-trait crops because of the risk of unexpected interactions between the different GM genes introduced into the crop – and between the introduced GM genes and the genes of the host plant. There is also the risk of combination effects from toxins produced in the plant and/or pesticide residues. In short, the addition of multiple traits to a single crop

increases the risk of unexpected and unintended harmful side-effects.

However, stacked-trait GM crops are even less rigorously investigated for possible health effects than single-trait GM crops. While the US does not require toxicological testing of any GM crops, Europe currently requires 90-day toxicological testing on single-trait GM crops. But in the case of stacked-trait crops, the EU food safety authority EFSA does not require toxicity testing of the final stacked-trait crop, believing that it can assess the toxicity of the final stacked-trait crop by looking at industry test findings on the single-event crops that were used to develop it.⁴⁴

This move is irresponsible in the extreme, as such an assessment process depends on a series of assumptions, not on scientific testing. It fails to look at the actual effects of the mixed transgenes and their products within the crop.

3.2 **Myth:** EU research shows GM foods are safe

Truth: EU research shows evidence of harm from GM foods

GM proponents often refer to research studies that they claim show the safety of GM foods. However, on closer examination, these same studies raise serious safety concerns. A related tactic is to claim that regulatory authorities have pronounced GM foods to be safe – when the regulators' actual statements are either equivocal or are based on industry-provided data.

The success of these tactics relies on the likelihood that few people will look at the source documents that are claimed to provide evidence for the safety of GM foods.

An example of such misrepresented sources is a group of fifty research projects funded by the European Union around the topic of the safety of GMOs for animal and human health and the environment. The results of the projects were published in 2010 by the European Commission in a report called *A Decade of EU-Funded GMO Research (2001–2010)*.⁴⁵

This EU report has been seized upon by GM proponents and some EU officials to bolster their claims that GMOs are safe. Some says that EU regulators have also reached this conclusion, based

on the projects' findings. Those who have cited the projects in this way include:

- The GM industry lobby group ISAAA⁴⁶
- Jonathan Jones, a British Monsanto-connected scientist^{47 48}
- Nina Federoff, former science and technology adviser to US secretary of state Hillary Clinton⁴⁹
- Máire Geoghegan-Quinn, European Commissioner for research, innovation and science.⁵⁰

Oddly, however, ISAAA, Jones, and Federoff do not cite any actual studies performed by the EU researchers. They do not even cite the findings or conclusions of the Commission's report on the studies, *A Decade of EU-Funded GMO Research*.

Instead, they cite a quote from an EU Commission press release announcing the publication of its report. The press release cites Máire Geoghegan-Quinn, European Commissioner for research, innovation and science, as stating that the EU research projects provided "no scientific evidence associating GMOs with higher risks for the environment or

for food and feed safety than conventional plants and organisms".⁵⁰

But it was not the studies' findings, nor even the Commission's report of those findings, but Geoghegan-Quinn's soundbite about the report that found its way into the GM proponents' statements. Closer examination of the case shows why.

Tracing the evidence back to its source, we examine first the report to which Geoghegan-Quinn was referring in her quote: *A Decade of EU-Funded GMO Research*. Of the fifty research projects discussed in the report, just ten are listed as relating to safety aspects of GM foods.⁴⁵

However, within those ten projects, there is astonishingly little data of the type that could be used as credible evidence regarding the safety or harmfulness of GM foods. Such evidence would normally consist of long-term animal feeding studies comparing one group of animals fed a diet containing one or more GM ingredients with a control group fed a diet containing the same ingredients in non-GM form. Instead, the studies examine such topics as risk assessment of GM foods, methods of testing for the presence and quantity of GMOs in food and feed, and consumer attitudes to GM foods.

This data is not relevant to assessing the safety of any GM food. In fact, the report makes clear that the food safety research studies were not designed to do so – though taxpayers would be entitled to ask why the Commission spent 200 million Euros of public money⁴⁵ on a research project that failed to address this most pressing of questions about GM foods. Instead, the research studies were designed to develop "safety assessment approaches for GM foods".⁴⁵ One of the published studies carried out under the project confirms that the aim was "to develop scientific methodologies for assessing the safety" of GM crops.²³

Nonetheless, a few animal feeding studies with GM foods were carried out as part of the EU project. It is difficult to work out how many studies were completed, what the findings were, and how many studies passed peer review and were published, because the authors of the EU Commission report fail to reference specific

studies to back up their claims. Instead, they randomly list references to a few published studies in each chapter of the report and leave the reader to guess which statements refer to which studies.

In some cases it is unclear whether there is any published data to back up the report's claims. For example, a 90-day feeding study on hamsters is said to show that "the GM potato was as safe as the non-GM potato", but no reference is given to any published study or other source of data, so there is no way of verifying the claim.⁴⁵

Our own search of the literature uncovered three published studies on GM food safety that were carried out as part of SAFOTEST, one of the ten food safety-related projects. Our examination of these studies below reveals that, contrary to the claims of GM proponents and Commissioner Geoghegan-Quinn, they do not show the safety of GM food but rather give cause for concern.

3.2.1. Poulsen (2007)²²

A feeding trial on rats fed GM rice found significant differences in the GM-fed group as compared with the control group fed the non-GM parent line of rice. These included a markedly higher water intake by the GM-fed group, as well as differences in blood biochemistry, immune response, and gut bacteria. Organ weights of female rats fed GM rice were different from those fed non-GM rice. Commenting on the differences, the authors said, "None of them were considered to be adverse". But they added that this 90-day study "did not enable us to conclude on the safety of the GM food."²²

In reality, a 90-day study is too short to show whether any changes found are "adverse" (giving rise to identifiable illness). Yet no regulatory body requires GM foods to be tested for longer than this subchronic (medium-term) period of 90 days.

The study found that the composition of the GM rice was different from that of the non-GM parent, in spite of the fact that the two rice lines were grown side-by-side in identical conditions. This is clear evidence that the GM transformation process had disrupted gene structure and/or function in the GM variety, making it non-substantially equivalent to the non-GM line.

3.2.2. Schröder (2007)²³

A study on rats fed GM Bt rice found significant differences in the GM-fed group of rats as compared with the group fed the non-GM isogenic line of rice. These included differences in the distribution of gut bacterial species – the GM-fed group had 23% higher levels of coliform bacteria. There were also differences in organ weights between the two groups, namely in the adrenals, testis and uterus. The authors concluded that the “possible toxicological findings” in their study “most likely will derive from unintended changes introduced in the GM rice and not from toxicity of Bt toxin” in its natural, non-GM form.²³

The study found that the composition of the GM rice was different from that of the non-GM isogenic (with the same genetic background but without the genetic modification) variety in levels of certain minerals, amino acids, and total fat and protein content.²³ These differences were dismissed on the basis that they were within the range reported for all varieties of rice in the literature. However, comparing the GM rice to genetically distinct, unrelated rice varieties is scientifically flawed and irrelevant. It serves only to mask the effects of the GM process (see 2.1.5, 2.1.6, 2.1.7).

Despite this flawed approach, the level of one amino acid, histidine, was markedly higher in the GM rice compared with the non-GM isogenic variety and outside the variability range for any rice.²³ Does this matter? No one knows, as the required investigations have not been carried out. What is known is that in other studies on rats, an excess of histidine caused rapid zinc excretion⁵¹ and severe zinc deficiency.⁵²

In addition, the level of the fatty acid, stearic acid, was below the value reported in the literature for any rice.²³

3.2.3. Kroghsbo (2008)²⁴

A study on rats fed GM Bt rice found a Bt-specific immune response in the non-GM-fed control group as well as the GM-fed groups. This unexpected finding led the researchers to conclude that the immune response in the control animals must have been due to their inhaling particles of the powdered Bt toxin-containing feed

consumed by the GM-fed group. The researchers recommended that for future tests on Bt crops, GM-fed and control groups should be kept in separate rooms or with separate air handling systems.²⁴

3.2.4. Conclusion on the SAFOTEST studies

The three SAFOTEST studies examined above provide no evidence of safety for GM foods and crops. On the other hand, they provide evidence that:

- Over a decade after GM foods were released into the food and feed supplies, regulators still have not agreed on methods of assessing them for safety
- The GM foods tested were markedly different in composition from their non-GM counterparts – probably due to the mutagenic or epigenetic (producing changes in gene function) effects of the GM process
- The GM foods tested caused unexpected, potentially adverse effects in GM-fed animals that should be investigated further in long-term tests
- The authors were not able to conclude that the GM foods tested were safe.

3.3 Myth: Those who claim that GM foods are unsafe are being selective with the data, since many other studies show safety

Truth: Studies that claim safety for GM crops are more likely to be industry-linked and therefore biased

"In a study involving 94 articles selected through objective criteria, it was found that the existence of either financial or professional conflict of interest was associated [with] study outcomes that cast genetically modified products in a favourable light."

– Diels J, et al. Association of financial or professional conflict of interest to research outcomes on health risks or nutritional assessment studies of genetically modified products. *Food Policy*. 2011; 36: 197–203

When it comes to hazardous products, the bias of industry-sponsored or industry-linked studies is well documented. Every time industry-linked studies are compared with studies on the same product from the independent (non-industry-linked) scientific literature, the same verdict is reached: industry studies are biased towards conclusions of safety for the product.

The best known example is tobacco industry studies, which successfully delayed regulation for decades by manufacturing doubt and controversy about the negative health effects of smoking and passive smoking.⁵³ More recently, studies sponsored by the pharmaceutical and mobile phone industry have been shown to be more likely to portray their products in a favourable light than non-industry-funded studies.^{54,55,56}

The case of GM crops is no different. Reviews of the scientific literature on the health risks of GM foods demonstrate that the studies that show safety are more likely to be industry-linked and are therefore inherently biased:

- A review of 94 published studies on health risks and nutritional value of GM crops found that they were much more likely to reach favourable⁵³ conclusions when the authors were affiliated with the GM industry than when the authors had no industry affiliation. In the studies where there was such a conflict of interest, 100% (41 out of 41) reached a favourable conclusion on GMO safety.⁵⁷
- A literature review of GM food safety studies

found that most studies concluding that GM foods are as nutritious and safe as non-GM counterparts were performed by the developer companies or associates.⁵⁸

In spite of the fact that industry-linked studies have been shown to be biased, approvals for GM crops are based solely on such industry studies.

Another tactic used by GM proponents is to point to lists of studies which they say show that GM foods are safe, but which actually show nothing of the sort. An example is on the GMO Pundit blog site, which claims that the over 400 cited studies "document the general safety and nutritional wholesomeness of GM foods and feeds."⁵⁹

But closer examination reveals:

- Most of the studies cited are not safety studies on GM foods. In other words, they are not animal feeding studies that look for health effects in animals fed GM foods. Some are compositional studies that compare the levels of certain major nutrients, such as fat or protein, in a GM crop with levels in a non-GM crop. Others are feed conversion studies that measure how efficiently a livestock animal converts GM feed into a food product, such as meat or milk.
- Many of the studies, on examination of the actual data, show problems with GM foods. These include unintended differences in a GM food compared with the non-GM counterpart and harmful effects in animal feeding trials. In fact, some of these studies are cited in this report as evidence that GM foods are not safe. Readers are encouraged to examine the original studies, where available, and form their own conclusions.

In contrast with these lists on GM proponents' websites, the two peer-reviewed literature reviews cited above identified and evaluated the studies that specifically examine the food safety and nutritional value of GM foods. Their conclusions were clear: industry-linked studies are more likely to conclude safety, whereas independent studies are more likely to find problems.^{57,58}

3.4 **Myth:** GM foods have been proven safe for human consumption

Truth: The few studies that have been conducted on humans show problems

GM foods are not properly tested for human safety before they are released for sale.^{60,19} The only published studies that have directly tested the safety of GM foods for human consumption found potential problems but were not followed up:

- In a study on human volunteers fed a single GM soybean meal, GM DNA survived processing and was detected in the digestive tract. There was evidence of horizontal gene transfer to gut bacteria.^{61,62} Horizontal gene transfer is a process by which DNA is transferred from one organism to another through mechanisms other than reproductive mechanisms. These mechanisms enable one organism to incorporate into its own genome genes from another organism without being the offspring of that organism.
- In a study on humans, one of the experimental subjects showed an immune response to GM soy but not to non-GM soy. GM soy was found to contain a protein that was different from the protein in non-GM soy. This shows that GM foods could cause new allergies.⁶³
- A GM soy variety modified with a gene from Brazil nuts was found to react with antibodies present in blood serum taken from people known to be allergic to Brazil nuts. Based on current immunological knowledge, this observation indicates that this soy variety would produce an allergic reaction in people allergic to Brazil nuts.⁶⁴
- A study conducted in Canada detected significant levels of the insecticidal protein, Cry1Ab, which is present in GM Bt crops, circulating in the blood of pregnant women and in the blood supply of their foetuses, as well as in the blood of non-pregnant women.⁶⁵ How the Bt toxin protein got into the blood (whether through food or another exposure route) is unclear and the detection method used has been disputed by defenders of GM crops. Nevertheless, this study raises questions as

to why GM Bt crops are being commercialised widely, when existing research raises serious concerns about their safety and yet no systematic effort is under way to replicate and thereby assess the validity of that research. These studies should be followed up with controlled long-term studies and GM foods and crops should not be commercialised in the absence of such testing.

3.5 **Myth:** No one has ever been made ill by a GM food

Truth: There is no scientific evidence to support this claim

GM proponents claim that people have been eating GM foods in the United States for 16 years without ill effects. But this is an anecdotal, scientifically untenable assertion, as no epidemiological studies to look at GM food effects on the general population have ever been conducted.

Furthermore, there are signs that all is not well with the US food supply. Reports show that food-related illnesses increased two- to ten-fold in the years between 1994 (just before GM food was commercialized) and 1999.^{66,67} No one knows if there is a link with GM foods because they are not labelled in the US and consumers are not monitored for health effects.

Under the conditions existing in the US, any health effects from a GM food would have to meet very specific and unusual conditions before they would be noticed. They would have to:

- Occur soon after eating a food that was known to be GM – in spite of its not being labelled – so that the consumer could establish a causal correlation between consumption and the harmful effect. Increases in diseases like cancer, which has a long latency period, would not be traceable to a GM food.
- Cause symptoms that are different from common diseases. If GM foods caused a rise in common diseases like allergies or cancer, nobody would know what caused the rise.
- Be dramatic and obvious to the naked eye or to the consumer of the GMO. No one examines a person's body tissues with a microscope for harm after they eat a GM food. But just this type of examination is needed to give early warning of problems such as pre-cancerous changes.

In addition, health effects would have to be recorded and reported by a centralized body that the public knew about and that could collate data as it came in and identify correlations. Currently, there is no such monitoring body in place anywhere.

Moderate or slow-onset health effects of GM

foods could take decades to become apparent through epidemiological studies, just as it took decades for the damaging effects of trans fats (another type of artificial food) to be recognised. Slow-poison effects from trans fats have caused millions of premature deaths across the world.⁶⁸ To detect important but subtle effects on health, or effects that take time to appear (chronic effects), long-term controlled studies on large populations would be needed.

3.5.1. **Two outbreaks of illness linked to GM foods**

Two high-profile cases have emerged in which a GM food was suspected of causing illness in people. In both cases, industry and regulators denied that genetic engineering was the cause, but an examination of the evidence gives no such reassurance.

L-tryptophan

In 1989 in the US, a food supplement, L-tryptophan, produced using GM bacteria, was found to be toxic, killing 37 people and permanently disabling over 1500 others.^{69,70,71} The resulting disease was named eosinophilia myalgia syndrome (EMS). Symptoms included an overproduction of white blood cells called eosinophils, severe myalgia (muscle pain), and in some cases, paralysis.

The L-tryptophan that affected people was traced back to a single source, a Japanese company called Showa Denko. In July 1990, a study published in the *Journal of the American Medical Association* mentioned that Showa Denko had introduced a new genetically engineered bacterium, called Strain V, in December 1988, a few months before the main epidemic hit.⁷¹

There is an ongoing debate about whether the toxin's presence in the L-tryptophan was due to genetic engineering or to Showa Denko's sloppy manufacturing processes. The company had made changes to its carbon filtration purification process before the toxic contaminant was discovered.

However, the authors of a 1990 study on the outbreak published in the *New England Journal of Medicine* (NEJM) pointed out that blaming a failure in the carbon filtration process leaves unanswered the question of how the toxin got into the product in the first place.⁷² This was a novel toxin that was not found in other companies' L-tryptophan products. The authors of the study, which was sponsored by the US Centers for Disease Control, noted that the new GM bacterial strain introduced by the manufacturer before the outbreak "may have produced larger quantities" of the toxin than earlier strains.⁷²

One of the study's co-authors, Dr Michael Osterholm, an epidemiologist at the Minnesota Department of Health, commented in a press article of August 1990 that the new bacterial strain "was cranked up to make more L-tryptophan and something went wrong. This obviously leads to that whole debate about genetic engineering."⁷³

Following Osterholm's comment, a number of press articles appeared voicing doubts about the safety of genetic engineering. The FDA took on the role of exonerating genetic engineering from blame for the EMS epidemic. An article in *Science* magazine quoted FDA official Sam Page as saying that Osterholm was "propagating hysteria". Tellingly, Page added, "The whole question: Is there any relation to genetic engineering? is premature – especially given the impact on the industry"⁷⁴ (our emphasis).

Osterholm countered: "Anyone who looks at the data comes to the same conclusion [that there may be a link with genetic engineering]... I think FDA doesn't want it to be so because of the implications for the agency."⁷⁴

James Maryanski, FDA biotech policy coordinator, blamed the EMS epidemic on Showa Denko's changes to the purification process.⁷⁵ Maryanski also said that genetic engineering could not have been solely or even chiefly responsible for EMS because cases of the illness had been reported for several years before Showa Denko introduced its genetically engineered bacterial Strain V in December 1988.⁷⁶

However, a study published in 1994 shows that this argument is misleading. Showa Denko had

named its bacterial strain "V" because there had been four previous strains of the bacterium. Over a period of years, Showa Denko had progressively introduced more genetic modifications into the bacteria used in its manufacturing process. It began using Strain V in December 1988, shortly before the EMS main outbreak in 1989.⁶⁹ But it had begun using its first genetically modified strain, Strain II, in 1984, according to lawyers who took on the cases of EMS sufferers.⁷⁷ This timescale means that Showa Denko's genetically engineered bacteria could have been responsible for the EMS epidemic.

The FDA responded to the crisis by claiming that all L-tryptophan was dangerous and temporarily banning all L-tryptophan from sale.⁷⁸ But a study sponsored by the Centers for Disease Control said if that were true, then "all tryptophan products of equal dose produced from different companies should have had the same [effect]". The study concluded that this was not the case, since out of six manufacturers of L-tryptophan, only Showa Denko's product was clearly associated with illness.⁷⁹

If Showa Denko's L-tryptophan were produced today, it would have to be assessed for safety, since it was derived from GM bacteria. However, since this L-tryptophan was greater than 99% pure and devoid of DNA, it would be passed as substantially equivalent to the same substance obtained from non-GM organisms. In other words, the tests that would be required to detect novel toxins of this type would be seen as unnecessary and no labelling would be required. So the same tragedy would result.⁸⁰

StarLink maize

In 2000 in the US, people reported allergic reactions, some of them severe, to maize (corn) products. A GM Bt maize called StarLink was found to have contaminated the food supply. Regulators had allowed StarLink to be grown for animal feed and industrial use but had not approved it for human food because of suspicions that the Bt insecticidal protein it contained, known as Cry9C, might cause allergic reactions.

The number of people who reported allergic reactions to maize products is not known because

there was no centralized reporting system. The US Food and Drug Administration (FDA) analyzed reports that had reached it and asked the US Centers for Disease Control (CDC) to investigate just 28 cases that met its criteria. CDC carried out tests on blood serum taken from these people but concluded that the findings did not provide evidence that the allergic reactions were associated with the Cry9C protein.⁸¹

However, there were problems with the CDC investigation, many of which were identified by the researchers themselves. For example, the control group of serum was obtained from blood samples taken before the 1996 release of StarLink. Yet this serum showed a more dramatic allergic response to Cry9C than the serum from people who had reported allergic reactions to StarLink.⁸¹ The researchers stated that this is common in samples that have been frozen and stored, as the control samples had been. But they expressed no concern that this would skew the results towards a false conclusion of no effect from StarLink. Neither did they replace the problem control samples with more reliable ones – for example, samples freshly taken from people who were unlikely to have been exposed to StarLink.

CDC's test and findings were reviewed by a panel convened by the US Environmental Protection Agency (EPA) – which criticised them on several grounds. The panel pointed out that the CDC researchers had isolated the Cry9C protein from *E. coli* bacteria rather than from StarLink maize. So the protein tested would have been different from the Cry9C protein suspected of causing allergic reactions.⁸² Specifically, the Cry9C protein from *E. coli* bacteria would have lacked sugar molecules, which would have been attached through a process called glycosylation to the same protein derived from maize. Glycosylation can be crucial in eliciting an allergic reaction. CDC's use of the incorrect protein invalidates its analysis and conclusions.

The seriousness of CDC's error in using *E. coli*- rather than maize-derived Cry9C protein is graphically illustrated by the study on GM peas containing an insecticidal protein from beans (see 3.1.1).⁴ The study found marked changes in the pattern of sugar molecules on the insecticidal

protein expressed in the GM peas, as compared with its native form in beans. The authors concluded that this change in the nature and structure of the sugar molecules was the reason why the GM insecticidal protein caused immune and allergic-type inflammation reactions in mice.

This case shows that it is necessary to derive the GM protein being studied from the GM crop rather than an unrelated source, as sugar molecule patterns will differ and the potential to cause immune and allergic reactions could vary significantly between the two.

Furthermore, the EPA panel criticised the CDC's test for its lack of proper controls. It also questioned the methodology and sensitivity of the test used. The EPA panel concluded, "The test, as conducted, does not eliminate StarLink Cry9C protein as a potential cause of allergic symptoms". The panel's verdict was that there is a "medium likelihood" that the Cry9C protein is an allergen.⁸²

3.5.2. Conclusion

Claims that no one has been made ill by a GM crop or food are scientifically unjustifiable, since no epidemiological studies have been carried out. However, the cases of L-tryptophan produced with GM bacteria and StarLink maize give cause for concern.

3.6 **Myth:** GM Bt insecticidal crops only harm insects and are harmless to animals and people

Truth: GM Bt insecticidal crops pose hazards to people and animals that eat them

Many GM crops are engineered to produce Bt toxin, a type of insecticide. Bt toxin in its natural, non-GM form is derived from a common soil bacterium and is used as an insecticidal spray in chemically-based and organic farming.

Regulators have approved GM Bt crops on the assumption that the GM Bt toxin is the same as the natural Bt toxin, which they say has a history of safe use. They conclude that GM crops engineered to contain Bt insecticidal protein must also be harmless.

But this is false, for the following reasons:

- Natural Bt toxin is not necessarily the same as the Bt toxin expressed by GM Bt plants. The Bt toxin protein in GM plants may be truncated or otherwise modified. For example, there is at least a 40% difference between the toxin in Bt176 maize (formerly commercialised in the EU, now withdrawn) and natural Bt toxin.¹¹ Such changes can mean that they have very different effects on people or animals that eat them. Prions (the folded proteins found in BSE-infected cows), venoms, and hormones, are all proteins, but are far from harmless.⁸³
- The natural Bt toxin used in insecticidal sprays behaves differently in the environment from the Bt toxin produced in GM plants. Natural Bt breaks down rapidly in daylight and only becomes active (and toxic) in the gut of the insect that eats it. It does not persist in the environment and so is unlikely to find its way into animals or people that eat the crop. With GM Bt crops, however, the plant is engineered to express the Bt toxin protein in active form in every cell. In other words, the plant itself becomes a pesticide, and people and animals that eat the plant are eating a pesticide.
- Even natural Bt toxin has been found to have negative health effects. In farm workers, exposure to Bt sprays was found to lead to allergic skin sensitisation and immune responses.⁸⁴ And laboratory studies found that natural Bt toxin

has ill effects on mammals, producing a potent immune response and enhancing the immune response to other substances.^{85,86,87}

- Safety tests for regulatory purposes are generally not carried out on the Bt toxin protein as expressed in the GM plant. The Bt toxin protein that is tested is usually derived from genetically engineered *E. coli* bacteria, as GM companies find it too difficult and expensive to extract enough Bt toxin from the GM crop itself. As we have seen, the GM process gives rise to unexpected changes in the desired protein, so it cannot be assumed that the Bt toxin protein derived from *E. coli* bacteria is the same as the protein derived from the GM plant that people and animals will eat. Indeed, the US Environmental Protection Agency, in its review of the commercialised Monsanto GM maize MON810, said it produces a “truncated” version of the protein – in other words, a protein that is not the same as the natural form.⁶⁰ Such changes can make a protein more toxic or allergenic.

3.6.1. Bt toxin does not only affect insect pests

GM proponents claim that the Bt toxin engineered into GM Bt crops only affects the target pests and is harmless to mammals, including people or animals that eat the crops.⁸⁸ Based on this assumption, regulators do not require human toxicity studies on GM Bt crops.

But the assumption is incorrect. In a 2012 test-tube (in vitro) study, genetically engineered Bt toxins were found to be toxic to human cells. One type of Bt toxin killed human cells at the dose of 100 parts per million. The findings showed that GM Bt toxin does affect humans, contrary to claims from the GM lobby and regulators.⁸³

The GM lobby responded by saying that in vitro studies do not accurately reflect what happens in a living human or animal that eats GM Bt crops. But

other independent studies have found that GM Bt crops have adverse effects when fed to laboratory animals. Findings include:

- Toxic effects on the small intestine, liver, kidney, spleen, and pancreas^{12,14,16,21,40}
- Disturbances in the functioning of the digestive system¹⁶
- Reduced weight gain¹²
- Immune system disturbances.¹⁵

Aside from laboratory animals and human cells, GM Bt crops have been found to have toxic effects on butterflies and other non-target insects,^{89,90,91} beneficial pest predators,^{92,93} bees,⁹⁴ and aquatic^{95,96} and soil organisms⁹⁷ (see section 4).

It is premature to say that the toxic effects associated with GM Bt crops are due to the Bt toxin from the crops. The effects may be due to one or more of the following causes:

- The Bt toxin as produced in the GM crop
- New toxins produced in the Bt crop by the GM process, and/or
- Residues of herbicides or chemical insecticides used on the Bt crop. Many Bt crops have added herbicide-tolerant traits,⁹⁸ making it likely that herbicide residues will be found on them.

3.6.2. Bt toxin protein may not be broken down harmlessly in the digestive tract

GM proponents claim that the Bt toxin insecticidal protein in GM plants is broken down in the digestive tract and so cannot get into the blood or body tissues to cause toxic effects.

But digestion is generally an incomplete process and studies show that Bt toxin protein is not always fully broken down:

- A study on cows found that Bt toxins from GM maize MON810 were not completely broken down in the digestive tract.⁹⁹
- A study simulating human digestion found that the Bt toxin protein was highly resistant to being broken down in realistic stomach acidity conditions and still produced an immune response.¹⁰⁰
- A study conducted on pregnant and non-pregnant women in Canada found Bt toxin protein circulating in the blood of pregnant women and the blood supply to their foetuses,

as well as in the blood of non-pregnant women.⁶⁵ Questions have been raised about the validity of the detection method, but further investigation is needed before Bt crops can be claimed to be safe for humans.

3.6.3. Conclusion

Studies on GM Bt crops show that Bt toxin is not specific to a narrow range of insect pests but can affect a wide variety of non-target organisms. Taken together, the studies on GM Bt crops and natural Bt toxin raise the possibility that eating GM crops containing Bt toxin may cause toxic or allergic reactions and/or sensitise people to other food substances.

3.7 Myth: GM foods are properly tested for ability to cause allergic reactions

Truth: No thorough allergenicity testing is conducted on GM foods

"There is more than a casual association between GM foods and adverse health effects.... Multiple animal studies show significant immune dysregulation, including upregulation of cytokines [protein molecules involved in immune responses] associated with asthma, allergy, and inflammation."

– American Academy of Environmental Medicine¹⁰¹

Most food allergies are caused by a reaction to a protein in a food. The DNA of an organism contains instructions for making proteins. Genetic engineering changes the DNA of a food, and that altered DNA can in turn create new proteins. Therefore, GM foods could create new allergies in two ways: the new proteins could cause allergic reactions (be "allergens") themselves, or the new proteins could sensitise people to existing food proteins.

The website GMO Compass, which is run by the public relations firm Genius GmbH, claims that GM plants pose no greater risk than new varieties of crops obtained through conventional breeding, or the importation of new exotic foods, which can also result in new allergens appearing in the diet.¹⁰²

But independent scientists disagree. A 2003 review states that compared with conventional breeding, GM has a "greater potential to introduce novel proteins into the food supply" and increase the likelihood of allergic reactions.¹⁰³ This was confirmed by a rare study on humans, in which one of the experimental subjects showed an immune response to GM soy but not to non-GM soy. GM soy was found to contain a protein that was different from the protein in the non-GM variety.⁶³

3.7.1. The EU system for assessing GM plants for allergenicity

Under European law, GM plants must be assessed for their potential to cause allergies before they

are allowed onto the market. Proponents claim that any potentially allergenic GM foods are likely to be caught by these regulatory checks. The GMO Compass website calls these assessments "rigorous" and adds, "If a GM plant is found to contain a potential allergen, its chances of receiving approval in the EU are slim to none."^{102,104}

But in reality, the European regulatory process, though stronger than the US process, has no rigorous system for assessing the allergenic potential of GM foods. This is largely because reliable scientific tests to predict allergenicity have not been developed.

The process that EU regulators use to assess the allergenicity of GM foods^{102,105} is based on a system proposed in 2001 by the Food and Agriculture Organisation of the United Nations and the World Health Organisation.¹⁰⁶ This system was actually designed by two GM industry-funded groups, the International Life Sciences Institute (ILSI), and the International Food Biotechnology Council (IFBC), as the FAO/WHO freely states.¹⁰⁶

The process begins with a comparison of the protein that the GM plant is designed to produce with known allergenic proteins. Depending on the outcome of this initial assessment, further investigations can include:

- Tests to see if the new protein reacts with the blood serum of sensitive individuals
- Artificial stomach tests to see if the protein is broken down easily (if it is, it is thought unlikely to be an allergen)
- Animal feeding trials.¹⁰²

3.7.2. Why the allergy assessment process is ineffective

Independent scientists have stated that the EU's allergenicity assessment is unlikely to reliably predict whether a GM food is likely to cause allergic reactions.

The most important reason is that the new protein that is assessed in the regulatory process is normally not the protein as expressed in the whole GM plant. Instead, it is what is known as a surrogate protein. This surrogate protein is isolated from sources such as GM *E. coli* bacteria or, occasionally, a different plant species.¹⁰⁷ This is scientifically unjustifiable because the protein can change as a result of the genetic engineering process and according to the organism within which it is expressed (see 3.1.1 and 3.5.1: StarLink maize). In other words, the same GM gene introduced into a GM plant and into *E. coli* bacteria can produce proteins that can have very different effects on the people and animals that eat them. In particular, bacteria and plants process newly synthesized proteins in different ways. So even though the amino acid sequences of the two proteins may be identical, their functions can be quite different.

Other reasons why the allergenicity decision tree model is unsatisfactory include:

- A comparison of the new protein in the GM food with the database of known allergens may not detect new allergens.
- Blood serum tests are problematic because allergenic sensitization is an allergen-specific process. So unless the transgenic protein expressed in the GMO is already a common allergen, there is unlikely to be a single sensitized person in the world whose blood serum would react with it.¹⁰³
- Blood serum tests are not useful in detecting uncommon allergens (substances that few people are allergic to).¹⁰³
- A phenomenon known as cross-reactivity can make it difficult to identify from blood serum testing which specific protein out of several is the allergen.¹⁰³
- The artificial stomach tests carried out for regulatory purposes are performed under unrealistic conditions – levels of acidity and digestive enzymes are much higher than would be present in the digestive systems of individuals that would consume the GMO. This makes it likely that the new GM protein will be broken down into fragments that are too small to be potent allergens. In real life, however, the levels of acidity and digestive enzymes in

people's stomachs vary, according to age, health status, length of time since they ate their last meal, and other factors. One study found that under the standard conditions used in artificial stomach tests, one of the insecticidal proteins commonly present in GM Bt crops was broken down. But when the researchers adjusted the acidity and enzymes to more realistic levels, the insecticidal protein was highly resistant to being broken down. The authors called for regulatory tests to be carried out in "more physiologically relevant" conditions of lower acidity and lower enzyme levels.¹⁰⁰

One review concluded that the allergenicity assessment might be useful in assessing GM foods containing a known allergenic protein, but that assessing proteins of unknown allergenicity is "more problematic" and "the predictive value of such an assessment is unknown".¹⁰³ A separate review agrees that the standard tests are "not always conclusive", especially when the organism from which the GM gene is taken has no history of dietary use or has unknown allergenicity.¹⁰⁸

The current allergy assessment system is not reliable because it relies heavily on *in vitro* tests (test-tube tests on non-living systems, such as the blood serum and artificial stomach tests). But unfortunately, an effective alternative does not yet exist. *In vivo* tests (tests on living organisms such as animals or humans) are useful for detecting nutritional or toxicological effects of foods, but no animal testing methods have yet been established for allergenicity testing of foods.^{103,108,109,110}

Independent scientists have asked for such animal tests to be developed.^{109,103,108,110}

At present, the only reliable approach to assessing the allergenicity of GMOs would be post-commercialisation monitoring under conditions where consumers are clearly informed when they consume the new GMO and are requested to report any adverse effects to designated authorities. Such post-commercialisation assessments are not required in any country. In countries such as the US and Canada, where consumers are not even informed by labelling of the presence of GMOs in the foods they are eating, the likelihood that allergenicity would be linked to a GMO would be extremely low, unless it caused

acute allergenicity problems to a large portion of the population.

3.7.3. Studies on GM foods confirm existing allergy assessments are inadequate

Studies on GM foods confirm that current allergy assessments are inadequate to detect new allergens created by the genetic engineering process.

In a study on mice fed GM peas containing an insecticidal protein from beans (see 3.1.1), mice showed antibody immune reactions and allergic-type inflammatory responses to the GM protein and chicken egg white protein when it was fed to them with the GM peas.

The mice did not show antibody immune reactions and allergic-type inflammatory responses to beans that naturally contain the insecticidal protein or to egg white protein when it was fed with the natural insecticidal protein obtained from beans. They also did not have an immune response to the egg white protein when it was fed on its own.

These outcomes show that the GM insecticidal protein made the mice more susceptible to developing allergic-type inflammatory reactions to foods eaten with the GM food. This is called immunological cross-priming.

The results indicated that the reaction of the mice to the GM peas was caused by changes brought about by the genetic engineering process. The normally non-immunogenic and non-allergenic insecticidal protein naturally produced in beans was altered in structure and/or function when engineered into peas, becoming a potent immunogen (substance that produces an immune response) and allergen.⁴

It is important to note that this study was not required by regulators, but was carried out as part of the developer's voluntary research programme. The allergenicity of the GM peas would likely not have been spotted by the EU's screening process because the natural, non-GM version of the bean insecticidal protein is not a known allergen. Because of this, blood serum from sensitised individuals would not have been available for regulatory serum tests.

Overall, the study shows that GM foods can contain new allergens and cause new allergic reactions – and that the GMO's allergenicity is unlikely to be detected using the current allergy assessment process.

Two other studies confirm the inadequacy of the current allergy assessment process:

- A study on a commercialised GM insecticidal maize, MON810, showed that the GM plant's proteins were markedly altered compared with those in the non-GM counterpart. Unexpected changes included the appearance of a new form of the protein zein, a known allergen, which was not present in the non-GM maize variety. A number of other proteins were present in both their natural forms and in truncated and lower molecular mass forms.¹¹¹ The findings suggest major disruptions in gene structure and function in this GM crop. The EU's allergy assessment failed to pick up these changes and failed to detect the presence of the newly created allergen.
- A GM soy variety modified with a gene from Brazil nuts was found to be capable of producing an allergic reaction in people who are allergic to Brazil nuts. The researchers had genetically engineered the Brazil nut gene into the soy in order to increase its nutritional value. When they tested the effect of this GM soy on blood serum from people allergic to Brazil nuts, they found that the serum produced an allergic response to the soy. Through scratch tests on skin, they confirmed that people allergic to Brazil nuts were allergic to the modified soybean.⁶⁴ This study is often cited by GM proponents as evidence of the effectiveness of regulatory processes in identifying allergenic foods before they reach the marketplace. But this is untrue. Tests such as this are not required to be carried out as part of the regulatory assessment of GM foods in any country.

3.7.4. Conclusion

The absence of reliable methods for allergenicity testing and the lack of rigour in current allergy assessments mean that it is impossible to reliably predict whether a GM crop will prove to be allergenic.

3.8 **Myth:** GM animal feed poses no risks to animal or human health **Truth:** GM feed affects the health of animals and may affect the humans who eat their products

Most GM crops go into animal feed. The GM industry and government regulators claim that meat, eggs, and dairy products from GM-fed animals do not need to carry a GM label because GM molecules – DNA and protein – are broken down in the animals' digestive tracts and is not detectable in the final food product.

But this assumption is false. Studies have found:

- GM DNA present in animal feed has been detected in milk sold on the Italian market, though the authors of the study said it was unclear whether the source of the GM DNA was ingestion by the animal or external contamination.¹¹²
- GM DNA in feed was taken up by the animal's organs and detected in the meat and fish that people eat.^{113,114,115,116}
- GM feed was found to affect the health of animals that eat it. GM DNA from soy was detected in the blood, organs, and milk of goats. An enzyme, lactic dehydrogenase, was found at significantly raised levels in the heart, muscle, and kidneys of young goats fed GM soy.¹¹⁷ This enzyme leaks from damaged cells during immune reactions or injury, so high levels may indicate such problems.
- Bt toxin protein was found circulating in the blood of pregnant women and the blood supply to their foetuses, as well as in the blood of non-pregnant women.⁶⁵
- MicroRNAs (molecules that affect gene expression) of plants have been found in the blood of mammals that have eaten them and were biologically active in those mammals, affecting gene expression and the functioning of important processes in the body. While this study was not carried out on GM plants, it showed that plants that are eaten, including GM plants, could exercise a direct physiological effect on human and animal consumers.¹¹⁸ The study suggested that the saying, "You are what you eat", may have some scientific credibility.

Given the growing evidence that a diet containing GM crops can damage the health of animals, there could be risks associated with the consumption of products derived from GM-fed animals. We conclude that the argument that meat and dairy products from GM-fed animals do not need to carry a GM label cannot be scientifically justified.

3.9 Myth: Genetic engineering will deliver more nutritious crops

Truth: No GM crop that is more nutritious than its non-GM counterpart has been commercialised and some GMOs are less nutritious

GM proponents have long claimed that genetic engineering will deliver healthier and more nutritious “biofortified” crops. However, no such nutritionally enhanced GM foods are available in the marketplace. In some cases, GM foods have been found to be less nutritious than their non-GM counterparts, due to unexpected effects of the genetic engineering process.

Examples include:

- GM soy had 12–14% lower levels of cancer-fighting isoflavones than non-GM soy.¹¹⁹
- Canola (oilseed rape) engineered to contain vitamin A in its oil had much reduced vitamin E and an altered oil-fat composition, compared with the non-GM control.¹²⁰
- Experimental GM rice varieties had unintended major nutritional disturbances compared with non-GM counterparts, although they were grown side-by-side in the same conditions. The structure and texture of the GM rice grain was affected and its nutritional content and value were dramatically altered. The variation ranged from 20 to 74% for amino acids, from 19 to 38% for fatty acids, from 25 to 57% for vitamins, from 20 to 50% for nutritionally important trace elements, and 25% for protein. GM rice varieties variously showed markedly decreased levels of vitamin E, protein, and amino acids. The authors said that their findings “provided alarming information with regard to the nutritional value of transgenic rice” and showed that the GM rice was not substantially equivalent to non-GM.¹²¹

3.9.1. Golden Rice: More hype than hope?

The best-known attempt to nutritionally improve a GM crop is beta-carotene-enriched “Golden Rice”.^{122,123} The crop is intended for use in poor countries in the Global South, where vitamin A deficiency causes blindness, illness, and deaths.

However, despite over a decade’s worth of headlines hyping Golden Rice as a miracle crop, it is still not available in the marketplace.

GM proponents blame excessive regulation and anti-GM activists for delaying the commercialisation of Golden Rice. But the real reasons for the delay seem to be basic research and development problems. The first Golden Rice variety had insufficient beta-carotene content and would have needed to be consumed in kilogram quantities per day to provide the required daily vitamin A intake.¹²² As a result, a totally new GM rice variety had to be generated with much higher beta-carotene content.¹²³

Also, the process of backcrossing Golden Rice with varieties that perform well in farmers’ fields in order to ensure a viable product has taken many years.^{124,125} A 2008 article in the journal *Science* said that there was still a “long way to go” in the backcrossing process.¹²⁴

It has taken over a decade to develop Golden Rice. Yet as of 2012, field trials have not been completed to ensure that it grows successfully in local conditions. Nor has it been tested in toxicological feeding trials on animals to establish whether it is safe to eat. Nevertheless, the rice was fed to human subjects (adults and children) in experiments conducted by researchers at Tufts University, Boston, MA. This was not a safety study but an efficacy test to see whether the human subjects assimilated sufficient beta-carotene and converted it to vitamin A. The efficacy test was conducted without basic toxicological testing having been carried out. This was condemned as a breach of medical ethics and the Nuremberg Code (established after World War II to prevent a repeat of inhumane Nazi experiments on humans) by a group of international scientists in a letter of protest to the Tufts researchers.¹²⁶

In contrast with the problematical Golden Rice, inexpensive and effective methods of combating

vitamin A deficiency have long been available. The most commonly used method is Vitamin A supplements. A review published in the *British Medical Journal* assessed 43 studies involving 200,000 children and found deaths were cut by 24% if children were given the vitamin. The researchers estimated that giving vitamin A supplements to children under the age of five in developing countries could save 600,000 lives a year. They concluded, "Vitamin A supplements are highly effective and cheap to produce and administer."^{127,128}

The World Health Organization's long-standing project to combat vitamin A deficiency uses vitamin A supplements, backed up with education and development programmes. These programmes encourage mothers to breastfeed and teach people how to grow carrots and leafy vegetables in home gardens – two inexpensive, effective, and generally available solutions. WHO says its programme has "averted an estimated 1.25 million deaths since 1998 in 40 countries."¹²⁹ According to WHO malnutrition expert Francesco Branca, these approaches are, for now, more promising approaches to combating vitamin A deficiency than Golden Rice.¹²⁴

If the resources that have been poured into developing Golden Rice had been put into such proven programmes, thousands of children and adults could have been saved. The food writer Michael Pollan wrote in an article for the *New York Times* entitled "The great yellow hype": "These ridiculously obvious, unglamorous, low-tech schemes are being tried today, and according to the aid groups behind them, all they need to work are political will and money."¹³⁰

Pollan is one of several critics who suggested that the real value of Golden Rice lies in its usefulness as a public relations strategy to boost the tarnished image of the biotechnology industry. Pollan wrote that Golden Rice seemed less like a solution to vitamin A deficiency than "to the public-relations problem of an industry that has so far offered consumers precious few reasons to buy what it's selling – and more than a few to avoid it."¹³⁰

3.9.2. Purple cancer-fighting tomato

The John Innes Centre (JIC) in the UK has developed a purple tomato engineered to contain

high levels of anthocyanin antioxidants, which have anti-cancer properties. The JIC announced the development of the tomato in 2008 in a press release headlined, "Purple tomatoes may keep cancer at bay".¹³¹ Professor Cathie Martin, who led the research, published an article in the press entitled, "How my purple tomato could save your life".¹³²

These claims were based on the results of a preliminary feeding study on cancer-susceptible mice, which found that those fed with the purple tomato had an extended lifespan, measured against control groups fed non-GM tomatoes and a standard rodent diet.¹³³ Yet as one of the researchers pointed out, the study did not test for possible toxicity, so "We're far from considering a human trial".¹³⁴

Meanwhile, anthocyanins are available in abundance in many common fruits and vegetables, including raspberries, blackberries, blueberries, bilberries, blood oranges, red cabbage, red onions, and aubergine (eggplant).

The JIC's Cathie Martin has argued that tomatoes are consumed by people who might not normally consume many fruits and vegetables, for example, on pizzas and in tomato ketchup on burgers.¹³² It is questionable, however, whether people who are conservative in their food choices would eat a tomato that looks, in the words of one journalist, "like a cross between an orange and a black pudding"¹³⁵ – let alone a tomato that, at least in Europe, will carry a GM label.

In 2010, a year after the JIC announced its purple GM tomato, Italian researchers announced a non-GM tomato with higher-than-usual levels of the anti-oxidant lycopene.¹³⁶ Lycopene, like anthocyanin, has anti-cancer properties.

In 2011 the JIC's GM purple tomato became entirely redundant when Brazilian researchers announced that they had developed a non-GM purple tomato with high levels of anthocyanins and vitamin C.¹³⁷ In contrast with the JIC's GM tomato, the non-GM tomatoes received little publicity.

3.9.3. "Biofortified" crops are not a sensible solution to hunger

Most "biofortified" crops, whether produced through GM or conventional breeding, target the

poor and hungry in the Global South and focus on one or two nutrients, such as Vitamin A or iron. Even if we assume that GM can produce more crops with high levels of one or two nutrients, some important topics need to be addressed before concluding that biofortifying crops by whatever means is a sensible approach to malnutrition:

Malnourished people are hungry not because of a lack of biofortified crops, but because they lack money to buy food and, increasingly, access to land on which to grow it. This type of poverty is often due to political conflicts in the country. Another cause is ill-advised “development” programmes that, in return for foreign loans and investment, have forced countries to convert farmland from growing food for people to eat into growing cash crops for export. These are political and economic problems that cannot be solved by offering a biofortified crop, for which the grower will need to be paid. People who have no money to buy basic food will certainly be unable to buy a biofortified food that has taken millions in investment funds to develop.

Malnourished people are not usually deficient in just one or two nutrients, but in many. Focusing on a crop that can deliver one or two nutrients is unhelpful because a balance of nutrients is needed for proper absorption. For example, in order to

absorb vitamin A, people need to have enough fat in their diet. This problem would need to be addressed before they could benefit from vitamin A-enriched food.

Manipulating nutrients in food is controversial because it can be viewed as medicating food. Dosage is difficult to control and certain nutrients may be needed by one person, yet be excessive and potentially dangerous for the next. Also, nutritional theory is a fast-moving discipline, with today’s desirable nutrient becoming tomorrow’s undesirable contaminant.¹³⁸

3.9.4. Non-GM biofortified crops are already available

If we assume that biofortified foods are a desirable approach to malnutrition, plenty of non-GM crop varieties are available now that do not present the risks and uncertainties of genetic engineering (see Section 7).

In addition, there are ways of adding nutrients to people’s diets that do not involve the considerable expense of crop breeding. These include a rice fortified with iron and vitamins, which has been reported in a preliminary study to have caused dramatic falls in anaemia and vitamin B1 deficiency in children.¹³⁹

Conclusion to Section 3

Contrary to frequent claims that there is no evidence of dangers to health from GM foods and crops, peer-reviewed studies have found harmful effects on the health of laboratory and livestock animals fed GMOs. Effects include toxic and allergenic effects and altered nutritional value.

Most animal feeding studies on GMOs have only been medium-term in length (30–90 days). While GM proponents claim that the observed harmful effects on health are not “biologically relevant” or “adverse”, such claims are scientifically unjustifiable; these terms have not even been properly defined.

What is needed are long-term and multi-generational studies on GMOs to see if the changes found in medium-term studies, which are suggestive of harmful health effects, will develop into serious

disease, premature death, or reproductive or developmental effects. Today, such studies are not required by regulators anywhere in the world.

Moreover, the system for assessing the allergenic potential of GM foods in place in the EU today – although it is probably the most rigorous of any assessment system anywhere in the world – is inadequate and unlikely to identify new allergens.

While GM proponents claim that GM can provide nutritionally enhanced (biofortified) foods, no such GM foods are available on the market.

The most widely publicised example of a GM nutritionally enhanced food, Golden Rice, has used up millions of dollars’ worth of research and development money. Yet it has not undergone

proper toxicological testing and, after more than a decade, is still not ready for the market. In contrast, tried, tested, and inexpensive means of preventing and curing vitamin A deficiency are successful when applied but are under-utilised due to underfunding.

Aspirational claims of nutritionally enhanced GM crops are a dangerous distraction from the

real causes of hunger, which are poverty and a lack of access to land on which to grow food. But if society decides that nutritionally enhanced foods are an important route to food security, it need not wait for expensive GM “solutions”. Conventional plant breeding has already successfully and safely produced many such biofortified foods.

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4. HEALTH HAZARDS OF ROUNDUP & GLYPHOSATE

Over 75% of all GM crops are engineered to tolerate herbicides. Roundup Ready (RR) soy is the most widely grown GM crop, making up 52% of all GM crops.¹ RR soy is engineered to tolerate Roundup herbicide, the main ingredient of which is glyphosate. The RR gene enables farmers to spray the field liberally with herbicide. All plant life is killed except the crop.

The widespread adoption of GM RR soy in North and South America has led to massive increases in the use of Roundup and other glyphosate herbicides.²

In South America, a public health crisis has emerged around the spraying of Roundup on GM soy, which is often carried out from the air. The problem made headlines on the publication of a 2010 study by Argentine researchers showing that glyphosate and Roundup caused malformations (birth defects) in frog and chicken embryos at doses far lower than those used in agricultural spraying. The malformations seen in the experimental embryos were similar to human birth defects reported in GM soy-growing areas of South America.

The researchers said the results were relevant to humans because humans have the same developmental mechanisms as frogs and chickens. The study identified the pathway through which glyphosate and Roundup affect embryonic development, the retinoic acid signalling pathway.³

A report by physicians in Argentina based on clinical data reported the following health effects in people exposed to spraying of agrochemicals (mostly glyphosate) on GM Roundup Ready soy: increased incidence of birth defects, miscarriages, infertility, cancers, DNA damage (which can lead to cancer and birth defects), neurological developmental problems in children, kidney failure, respiratory problems, and allergies.⁴

A report commissioned by the provincial government of Chaco, Argentina, found that the rate of birth defects increased fourfold and rates of childhood cancers tripled in only a decade in areas where rice and GM soy crops are heavily sprayed. The report noted that problems centred on “transgenic crops, which require aerial and ground spraying with agrochemicals”; glyphosate

Section at a glance

- ▶ Roundup, the herbicide that most GM crops are engineered to tolerate, based on the chemical glyphosate, is marketed as a “safe” herbicide, based on outdated and largely unpublished studies by manufacturers.
- ▶ But laboratory and epidemiological studies confirm that Roundup poses serious health hazards, including endocrine (hormone) disruption, DNA damage, cancer, birth defects, and neurological disorders.
- ▶ Some of these effects are found at low, realistic doses that could be found as residues in food and feed crops and in contaminated water. People who eat foods made from GM crops could be ingesting potentially dangerous levels of Roundup residues.
- ▶ Roundup and glyphosate have been detected in air, rain, groundwater, in people’s urine, and even circulating in women’s blood. Glyphosate can cross the placental barrier and the unborn foetus could thus be exposed.
- ▶ The “safe” dose for Roundup exposure set by regulators is not based on up-to-date objective evidence; thus current regulations do not protect the public.

was named as a chemical of concern.⁵

These issues are relevant not only to people living in regions where GM RR crops are grown, but for consumers who eat products made from crops sprayed with glyphosate. GM RR crops do not break down glyphosate, but absorb it. Some is broken down (metabolised) into a substance called aminomethylphosphonic acid (AMPA). Both glyphosate and AMPA remain in the plant and are eaten by people and animals. Both are toxic.

Scientific evidence suggests that Roundup and other commercial formulations are more toxic than glyphosate alone – yet it was glyphosate alone that was tested by industry prior to market authorization and approved by regulators. The herbicide formulations as they are sold and used have not been properly tested and assessed for safety.

4.1 **Myth:** Roundup is a safe herbicide with low toxicity

Truth: Roundup poses major health hazards

Roundup is marketed as a “safe” herbicide, based on outdated and largely unpublished studies by manufacturers.⁶ But independent toxicological and epidemiological studies confirm that Roundup and glyphosate pose serious health hazards, as detailed below.

4.1.2. **People who eat Roundup Ready crops may be eating toxic residues**

The effects on animals and humans of eating increased amounts of glyphosate herbicide residues on such crops have not been properly investigated. On the contrary, regulators have ignored risks and changed safety rules to allow higher levels of glyphosate residues into the food and feed chain.

For example, after the 1996 commercialisation of GM RR soy, EU regulators raised the allowed maximum residue limit (MRL) for glyphosate in imported soy 200-fold, from 0.1 mg/kg to 20 mg/kg.⁷ The UK government claimed that the move was necessary to accommodate the new farm practice of using glyphosate as a desiccant to “burn down” crops before harvest, making grains or beans easier to gather.⁸ But it also conveniently coincided with the introduction of RR soy.

Indeed, a 1994 report of the Joint FAO/WHO Meetings on Pesticide Residues (JMPR) indirectly admitted that GM soy was a factor in the need for the higher limit. This JMPR meeting appears to have been the source of the recommendation for the new higher residue limit. In its report, the JMPR recommended the higher limit of 20 mg/kg for soybeans. The JMPR said the change was needed because of a combination of two factors: glyphosate’s use as a desiccant before harvest; and to accommodate “sequential application of glyphosate in the crop”⁹ – a practice that is only possible with GM RR soy, as it would kill non-GM soy.

In a 1999 press interview, Malcolm Kane, the then recently-retired head of food safety at UK supermarket chain Sainsbury’s, confirmed that the European regulators raised the residue limit to “satisfy the GM companies” and smooth the path

for GM soy to enter the food and feed market. Kane added, “One does not need to be an activist or overtly anti-GM to point out that herbicide-resistant crops come at the price of containing significant chemical residues of the active chemical in the commercial weedkiller.”⁸

This high residue limit is potentially unsafe, based on data from independent studies that EU regulators ignored in setting their claimed safe daily dose.^{10,11,12} Glyphosate, AMPA, and especially the commercial formulation Roundup have been found to be toxic, in some cases at extremely low levels.^{13,14,15} Roundup damages and kills human cells at levels below those used in agriculture¹⁶ and at residual levels to be expected in food and feed derived from Roundup-treated crops.¹³ Roundup is a potent endocrine disruptor (disturbs hormone function) at concentrations up to 800 times lower than the highest permitted levels in food and feed.¹⁷ So people who eat food products from GM RR crops are eating amounts of these substances that may have toxic effects.

4.1.3. **Studies show toxic effects of glyphosate and Roundup**

Independent studies on human cells and experimental animals have shown that glyphosate and Roundup have serious toxic effects, in many cases at low levels that could be found in the environment or as residues in food or feed.^{13,14,15}

The added ingredients (adjuvants) in Roundup are themselves toxic and increase the toxicity of glyphosate by enabling it to penetrate human and animal cells more easily.^{13,18,19} Findings include:

- Glyphosate and Roundup caused malformations in frog and chicken embryos.³
- Roundup caused skeletal malformations in rat fetuses.²⁰
- Industry’s own studies conducted for regulatory purposes as long ago as the 1980s show that glyphosate caused birth defects in rats and rabbits. These effects were seen not only at high, maternally toxic doses, but also

at lower doses. Interestingly, these effects were discounted by regulators, who approved glyphosate for use in food production.¹⁰

- Roundup caused liver and kidney toxicity in fish at sublethal doses. Effects in the liver included haemorrhage and necrosis (death of cells and living tissue).²¹
- Roundup caused total cell death in human cells within 24 hours at concentrations far below those used in agriculture and corresponding to levels of residues found in food and feed.¹³
- Roundup caused death of human cells and programmed cell death at a concentration of 50 parts per million, far below agricultural dilutions.¹⁶
- Roundup was a potent endocrine disruptor at levels up to 800 times lower than residue levels allowed in food and feed. It was toxic to human cells and caused DNA damage at doses far below those used in agriculture.¹⁷
- Glyphosate was toxic to human placental cells and is an endocrine disruptor in concentrations lower than those found with agricultural use. Roundup adjuvants amplified glyphosate's toxicity by enabling it to penetrate cells more easily and to bioaccumulate in cells.¹⁵
- Glyphosate and Roundup damaged human embryonic and placental cells at concentrations below those used in agriculture, suggesting that they may interfere with human reproduction and embryonic development.¹⁴
- Glyphosate's main metabolite (environmental breakdown product), AMPA, altered cell cycle checkpoints by interfering with the cells' DNA repair machinery.^{22,23,19,24} The failure of cell cycle checkpoints is known to lead to genomic instability and cancer in humans.
- Glyphosate and AMPA irreversibly damaged DNA, suggesting that they may increase the risk of cancer.^{25,26}
- Glyphosate promoted cancer in the skin of mice.²⁷
- Roundup caused cell and DNA damage to epithelial cells derived from the inside of the mouth and throat, and glyphosate alone caused DNA damage, raising concerns over the safety of inhaling the herbicide, one of the most common ways in which people are exposed.

Importantly, both glyphosate and Roundup caused DNA damage at concentrations below those required to induce cell damage, suggesting that the DNA damage was caused directly by glyphosate and Roundup instead of being an indirect result of cell toxicity.²⁸

4.1.4. Epidemiological studies on Roundup show links with serious health problems

Epidemiological studies show a link between Roundup/glyphosate exposure and serious health problems, including:

- DNA damage²⁷
- Premature births and miscarriages^{28,29}
- Birth defects including neural tube defects and anencephaly (absence of a large part of the brain and skull)^{32,33}
- Multiple myeloma, a type of cancer³⁴
- Non-Hodgkin's lymphoma, a type of cancer^{35,36,37}
- Disruption of neurobehavioral development in children of pesticide applicators – in particular, attention-deficit disorder (ADD) and attention-deficit hyperactivity disorder (ADHD).³⁸

Epidemiological studies cannot prove a cause-and-effect relationship between exposure to a suspect substance and a health effect. However, in the case of glyphosate/Roundup, toxicological studies carried out under controlled laboratory conditions confirm the causal relationship to health problems (see 4.1.3).

4.1.5. People are widely exposed to glyphosate

Glyphosate-based herbicides are widely used outside of the farm environment – for example, by municipal authorities to control weeds on roadsides and in parks and school grounds, as well as by home gardeners. So even when farm use is excluded, people's exposure to glyphosate is significant. In agricultural areas where GM glyphosate-resistant crops are grown, exposure is likely to increase exponentially.

Study findings on human exposures and body burdens include:

- Glyphosate was detected in between 60 and

100% of air and rain samples taken in the American Midwest during the crop growing season.³⁹ Roundup Ready GM crops are widely planted in this region.

- Glyphosate and its main breakdown product, AMPA, were frequently detected in streams in the American Midwest during the growing season.⁴⁰
- Glyphosate and its main breakdown product AMPA were washed out of the root zone of clay soils in concentrations that exceeded the acceptable quantities for drinking water (0.1 µg/l), with maximum values of over 5 µg/l.⁴¹
- Glyphosate was found circulating in the blood of non-pregnant women, albeit at low levels.⁴²
- Urinary body burdens of glyphosate in farm and non-farm families in Iowa were over 900 parts per billion (0.9 mg per kg of body weight) in 75% of farmers, 67% of wives, and 81% of farmers' children. Urinary burdens in non-farm children were slightly higher than those in farm children. The authors suggested that this was because of the widespread use of glyphosate in non-farm areas, such as in people's gardens.⁴³

The placental barrier in mammals is often claimed to protect the unborn foetus from glyphosate exposures. But this claim was shown to be false by a research study modeling human exposures, in which 15% of administered glyphosate crossed the human placental barrier and entered the foetal compartment.⁴⁴

4.1.6. People are not protected by the current regulations on glyphosate

An analysis of glyphosate's current approval in the EU and in the US suggests that the "acceptable daily intake" (ADI) level, the level of exposure that is deemed safe for humans over a long period of time, is inaccurate and potentially dangerously high.¹⁰

Regulators calculate the ADI on the basis of industry studies submitted to the regulators in support of the chemical's approval. The figure used to set the ADI is the highest dose at which no adverse effect is found (the No Observed Adverse Effect Level or NOAEL), which is also lower than

the lowest dose that has a toxic effect (the Lowest Observed Adverse Effect Level or LOAEL). The ADI is derived by dividing this figure by 100, to allow a safety margin.

The current ADI for glyphosate is 0.3 mg per kg of body weight per day (written as 0.3 mg/kg bw/d).

But this ADI has been shown to be inaccurate by two independent studies on Roundup using an animal (rat) and exposure route (oral feeding) approved by EU and international regulators. The studies found that:

- Roundup was a potent endocrine disruptor and caused disturbances in the reproductive development of rats when the exposure was performed during the puberty period. Adverse effects, including delayed puberty and reduced testosterone production, were found at all dose levels, including the LOAEL of 5 mg/kg bw/d.¹¹
- Glyphosate herbicide caused damage to rats' liver cells that the researchers said was probably "irreversible" at a dose of just 4.87 mg/kg bw/d.¹²

These studies did not find a safe or "no effect" level (NOAEL). Even the lowest dose tested produced a toxic effect and no further experiments were done with lower doses to establish the NOAEL. A reasonable estimate of the NOAEL might be 2.5 mg/kg of body weight (though this estimate should, of course, be tested). Then, applying the 100-fold safety factor, the ADI should be 0.025 mg/kg bw/d – 12 times lower than the one currently in force.

Even if only the industry studies are considered, the current ADI should still be lower. An objective analysis of these studies results in a more objectively accurate ADI of 0.1 mg/kg bw/d, one-third of the current ADI.¹⁰

4.1.7. Arguments that Roundup replaces more toxic herbicides are false

GM proponents often argue that Roundup has replaced more toxic herbicides and that GM RR crops therefore reduce the toxic burden on humans and the environment. But this is false. GM RR crops have not only increased the use of glyphosate herbicides but have also increased

the use of other, potentially even more toxic herbicides, due to the spread of glyphosate-resistant weeds (see Section 5). And as we have

seen, the presumed safety of Roundup owes more to clever marketing than to objective scientific findings.

Conclusion to Section 4

GM Roundup Ready (RR) soy is the most widely grown GM crop. It is engineered to tolerate being sprayed with Roundup herbicide, based on the chemical glyphosate. Widespread planting of GM soy in North and South America has led to large increases in the amount of glyphosate herbicide used. Regulators have responded by raising the allowed residue limit of glyphosate in crops eaten by people and animals. So people and animals that eat GM RR crops are eating potentially toxic herbicide residues.

Regulators and industry claim that this is safe because Roundup has low toxicity. But these claims – as well as the supposed “safe” level of glyphosate set by regulators – are based on outdated industry studies, the findings of which have been thrown into question by numerous independent studies. These studies show that Roundup and glyphosate are not safe but pose serious health risks. Effects found in animal studies and test-tube studies on human cells include cell death and damage, damage to DNA, disruption of hormones, birth defects, and cancer.

Some of these effects have been found at levels far below those used in agriculture and corresponding to low levels of residues in food and feed. The added ingredients in Roundup (adjuvants) increase the toxicity of glyphosate, and the main breakdown product of glyphosate, AMPA, is also toxic.

Effects of exposure to glyphosate herbicides on humans found in epidemiological studies include DNA damage, premature birth and miscarriage, cancer, and attention deficit disorder in children.

The widespread use of glyphosate herbicides – not just on farms but in gardens, on roadsides, and in parks and school grounds – means that many people are exposed. In addition, glyphosate does not stay where it is applied but moves around the environment. It is frequently found in rain, air, streams, and groundwater, and even in women’s blood.

GM crops have increased the use of glyphosate and thus people’s exposure to it, presenting a risk that has not been adequately considered in regulatory assessments of GM crops.

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5. GM CROPS – IMPACTS ON THE FARM AND ENVIRONMENT

Section at a glance

- ▶ GM does not increase intrinsic yield. Some GM crops have lower yields than non-GM counterparts.
- ▶ GM crops have increased pesticide use by 383 million pounds in the US in the first 13 years since their introduction.
- ▶ The modest reduction in chemical insecticide sprays from GM Bt insecticidal crops is swamped by the large increase in herbicide use with GM herbicide-tolerant crops.
- ▶ GM herbicide-tolerant crops have caused an over-reliance on a single herbicide, glyphosate, leading to the emergence of resistant superweeds and causing farmers to use more herbicides, including older toxic ones like dicamba and 2,4-D.
- ▶ The GM companies' solution to the glyphosate-resistant superweeds problem is stacked trait GM crops that tolerate applications of multiple herbicides – and mixtures of herbicides. Weed scientists warn that this will cause herbicide use to triple, foster multi-herbicide-resistant superweeds, and undermine sustainable farming.
- ▶ Claims of environmental benefits from no-till of farming as used with GM herbicide-tolerant crops collapse once herbicide use is taken into account.
- ▶ GM Bt crops do not eliminate insecticide use – they merely change the way in which insecticides are used. The plant itself becomes an insecticide.
- ▶ GM Bt technology is being undermined by the spread of insect pests that are resistant to Bt crops, forcing farmers to use chemical insecticides as well as buying expensive Bt seed.
- ▶ Bt toxins in GM Bt crops are not specific to insect pests, but harm beneficial insect pest predators and soil organisms.
- ▶ Roundup used on GM herbicide-tolerant crops is not environmentally safe. It persists in the environment and has toxic effects on wildlife as well as humans (section 4).
- ▶ Roundup increases plant diseases, notably Fusarium, a fungus that causes sudden death and wilt in soy plants and is toxic to humans and livestock.
- ▶ The economic impacts on farmers of adopting GM crops were described in a study for the US Dept of Agriculture as “mixed or even negative”.
- ▶ “Coexistence” between GM and non-GM crops is impossible as non-GM and organic crops become contaminated, resulting in lost markets and massive economic losses.
- ▶ The possibility that GM traits could spread not only to related species by cross-pollination but also to unrelated species by horizontal gene transfer, should be investigated before commercialising GM crops.

“Over the past decade, corporate and government managers have spent millions trying to convince farmers and other citizens of the benefits of genetically modified (GM) crops. But this huge public relations effort has failed to obscure the truth: GM crops do not deliver the promised benefits; they create numerous problems, costs, and risks; and ... consumers and foreign customers alike do not want these crops.

“It would be too generous even to call GM crops a solution in search of a problem: These crops have failed to provide significant solutions, and their use is creating problems – agronomic, environmental, economic, social, and (potentially) human health problems.”

– National Farmers Union of Canada¹

GM crops are promoted on the claimed basis that they give higher yields, reduce pesticide use, and benefit farmers and the environment. But independent studies either contradict these claims or show them to be inflated. GM crop technology is already failing under the onslaught of developments such as the spread of herbicide-resistant superweeds and pests resistant to the Bt toxin engineered into crops. These failures mean increasing costs to farmers and harm to the environment.

On-farm and environmental impacts of GM crops are not limited to the effects of the GM crop itself – for example, GM genes can spread to non-GM and organic crops. They also include the effects of the pesticide that the crop is engineered to contain or that it is designed to be grown with. Research shows that impacts are occurring from all these sources.

Some of these impacts occur with industrially-grown non-GM crops, too. But often, GM proponents obscure the negative effects of GM crops by comparing them with crops grown under chemically-based agricultural systems. They then draw the conclusion that GM crops have less harmful impacts.

But this is to compare one unsustainable agricultural system with another. A more

meaningful comparison, and one that would help advance agricultural technology, would be to compare GM with agroecological or integrated pest management (IPM) systems. Many farmers outside the certified organic sector already use agroecological and IPM methods. This progressive trend should be encouraged. Instead, it is being delayed by the false hope offered farmers by GM crops. In contrast to agroecological methods, GM agriculture is an extension of chemically-based, high-input agriculture.

Below, we point out some of the flaws in the common arguments used to promote GM crops.

5.1 **Myth:** GM crops increase yield potential

Truth: GM crops do not increase yield potential – and in many cases decrease it

GM crops are often claimed to give higher yields than naturally bred varieties. But the data do not support this claim. At best, GM crops have performed no better than their non-GM counterparts, with GM soybeans giving consistently lower yields.³

Controlled field trials comparing GM and non-GM soy production suggested that 50% of the drop in yield is due to the disruption in genes caused by the GM transformation process.⁴ Similarly, field tests of Bt maize hybrids showed that they took longer to reach maturity and produced up to 12% lower yields than their non-GM counterparts.⁵

A US Department of Agriculture report confirmed the poor yield performance of GM crops, saying, “GE [genetically engineered] crops available for commercial use do not increase the yield potential of a variety. In fact, yield may even decrease.... Perhaps the biggest issue raised by these results is how to explain the rapid adoption of GE crops when farm financial impacts appear to be mixed or even negative.”⁶

The definitive study to date on GM crops and yield is *Failure to Yield*,² by Dr Doug Gurian-Sherman, senior scientist at the Union of Concerned Scientists and former biotech adviser to the US Environmental Protection Agency. The study, which is based on peer-reviewed research and official US Department of Agriculture (USDA) data, was the first to tease out the contribution of genetic engineering to yield performance from the gains made through conventional breeding. It is important to bear in mind when evaluating the yield performance of GM crops that biotech companies insert their proprietary GM genes into the best-performing conventionally bred varieties.

The study also differentiated between intrinsic and operational yield. Intrinsic or potential yield, the highest that can be achieved, is obtained when crops are grown under ideal conditions. In contrast, operational yield is obtained under field conditions, when environmental factors

“Commercial GE crops have made no inroads so far into raising the intrinsic or potential yield of any crop. By contrast, traditional breeding has been spectacularly successful in this regard; it can be solely credited with the intrinsic yield increases in the United States and other parts of the world that characterized the agriculture of the twentieth century.”

– Doug Gurian-Sherman, former biotech advisor to the US Environmental Protection Agency (EPA) and senior scientist at the Union of Concerned Scientists in Washington, DC²

such as pests and stress result in yields that are considerably less than ideal. Genes that improve operational yield reduce losses from such factors.

The study found that GM technology has not raised the intrinsic yield of any crop. The intrinsic yields of corn and soybeans did rise during the twentieth century, but this was not as a result of GM traits, but due to improvements brought about through traditional breeding.

The study found that GM soybeans did not increase operational yields, either. GM maize increased operational yields only slightly, mostly in cases of heavy infestation with European corn borer. Bt maize offered little or no advantage when infestation with European corn borer was low to moderate, even when compared with conventional maize that was not treated with insecticides.

The study concluded, “Commercial GE crops have made no inroads so far into raising the intrinsic or potential yield of any crop. By contrast, traditional breeding has been spectacularly successful in this regard; it can be solely credited with the intrinsic yield increases in the United States and other parts of the world that characterized the agriculture of the twentieth century.”²

In 2009, in an apparent attempt to counter criticisms of low yields from its GM soy, GM seed producer Monsanto released its new generation of

supposedly high-yielding GM soybeans, RR2 Yield. But a study carried out in five US states involving 20 farm managers who planted RR2 soybeans in 2009 concluded that the new varieties “didn’t meet their [yield] expectations”.⁷ In June 2010 the state of West Virginia launched an investigation of Monsanto for false advertising claims that RR2 soybeans gave higher yields.⁸

If GM cannot increase yields even in the United States, where high-input, irrigated, heavily subsidised commodity farming is the norm, it is irresponsible to assume that it would improve yields in the Global South, where farmers may literally bet their farms and livelihoods on a crop.

We agree with the conclusion of *Failure to Yield* that the funding and research that are currently poured into trying to produce high-yield GM crops should be redirected toward approaches that are proven effective in improving crop yields, including conventional plant breeding as well as use of agroecological practices. These are by far the most efficient, affordable, and widely practised methods of improving yield.

5.2 Myth: GM crops decrease pesticide use Truth: GM crops increase pesticide use

"GE crops have been responsible for an increase of 383 million pounds of herbicide use in the US over the first 13 years of commercial use of GE crops (1996–2008). This dramatic increase in the volume of herbicides applied swamps the decrease in insecticide use attributable to GE corn and cotton, making the overall chemical footprint of today's GE crops decidedly negative... The primary cause of the increase [is] the emergence of herbicide-resistant weeds."
– Dr Charles Benbrook, agronomist⁹

"The promise was that you could use less chemicals and produce a greater yield. But let me tell you none of this is true."
– Bill Christison, president of the US National Family Farm Coalition²⁰

GM crops are claimed by proponents to reduce pesticide use (the term "pesticide" includes herbicides, which technically are pesticides). But this is untrue. Herbicide-tolerant crops have been developed by agrochemical firms specifically to depend upon agrochemicals and have extended the market for these chemicals. Far from weaning agriculture away from environmentally damaging chemicals, GM technology has prolonged and extended the chemically-based agricultural model.

The adoption of GM Roundup Ready crops, especially soy, has caused massive increases in the use of glyphosate worldwide.^{9,11,12,13,14}

A report by agronomist Dr Charles Benbrook using official US Department of Agriculture data looked at the effects on pesticide use of the first thirteen years of GM crop cultivation in the United States, from 1996 to 2008.⁹ Crops taken into account were GM herbicide-tolerant and GM Bt maize varieties, GM Roundup Ready soy, and GM herbicide-tolerant and GM Bt cotton varieties.

The report found that Bt maize and cotton delivered reductions in chemical insecticide use totalling 64.2 million pounds (29.2 million kg) over the thirteen years – though even the sustainability

of this trend is questionable, given the emergence of Bt-resistant pests and the changes in insecticide use patterns (see 5.3, below).

But herbicide-tolerant maize, soy, and cotton caused farmers to spray 383 million more pounds (174 million kg) of herbicides than they would have done in the absence of herbicide-tolerant seeds. This massive increase in herbicide use swamped the modest 64.2 million pound reduction in chemical insecticide use attributed to Bt maize and cotton.

The report showed that recently, herbicide use on GM fields has veered sharply upward. Crop years 2007 and 2008 accounted for 46% of the increase in herbicide use over thirteen years across the three herbicide-tolerant crops. Herbicide use on GM herbicide-tolerant crops rose 31.4% from 2007 to 2008.

The report concluded that farmers applied 318 million more pounds of pesticides as a result of planting GM seeds over the first thirteen years of commercial use. In 2008, GM crop fields required over 26% more pounds of pesticides per acre (1 acre = 0.4 hectares) than fields planted to non-GM varieties.

The report identified the main cause of the increase in herbicide use as the spread of glyphosate-resistant weeds.

5.2.1. Glyphosate-resistant superweeds

The widespread use of Roundup Ready crops has led to over-reliance on a single herbicide – glyphosate, commonly sold as Roundup. This has resulted in the rapid spread of glyphosate-resistant weeds in countries where GM crops are planted.¹⁵ Resistant weeds include pigweed,¹⁶ ryegrass,¹⁷ and marestail.¹⁸

The Herbicide Resistance Action Committee (HRAC), financed by the pesticide industry, lists 21 glyphosate-resistant weeds around the world. In the United States, glyphosate-resistant weeds have been identified in 22 states.¹⁹

When resistant weeds first appear, farmers

often use more glyphosate herbicide to try to control them. But as time passes, no amount of glyphosate herbicide is effective and farmers are forced to resort to potentially even more toxic herbicides, such as 2,4-D, and mixtures of herbicides.^{15,16,17,18,20,21,22,23,24,25,26}

US farmers are going back to more labour-intensive methods like ploughing – and even pulling weeds by hand.²⁵ In Georgia, tens of thousands of acres of farmland have been abandoned after being overrun by glyphosate-resistant pigweed.^{27,28}

An article in Monsanto's hometown newspaper, the St Louis Post-Dispatch, said of the Roundup Ready system, "this silver bullet of American agriculture is beginning to miss its mark."²⁹ As glyphosate-resistant weeds undermine the Roundup Ready farming model, Monsanto has taken the extraordinary step of subsidizing farmers' purchases of competing herbicides to supplement Roundup.^{25,30}

5.2.2. How are superweeds created?

Many glyphosate-resistant weeds appear through what is known as selection pressure – only those weeds that survive being sprayed with glyphosate herbicides pass on their genes, leading to a steady increase in glyphosate-resistant plants in the weed population.

But there is a second route through which glyphosate-resistant weeds develop: GM crops can pass on their genes for herbicide tolerance to wild or cultivated non-GM relatives. GM canola has been found to pass on its glyphosate-tolerance genes to related wild plants such as wild mustard, turning them into difficult-to-control superweeds. The GM herbicide-tolerance gene was shown to persist in these weed populations over a period of six years.³¹

GM canola itself has also become a weed. Feral canola populations have acquired resistance to all of the main herbicides used in Canada,²⁴ making it difficult and expensive to control "volunteer" canola in soy and maize fields. Feral herbicide-resistant canola has also become a problem in sugar beet fields in the US, where canola seeds are reported to be deposited by defecation from geese migrating from Canada.³²

5.2.3. GM industry "solution" to superweeds: More herbicides

The industry's solution to the glyphosate-tolerant superweeds crisis has been first, to aggressively market pre-mix herbicide products to farmers, and second, to develop "stacked trait" crop varieties resistant to multiple herbicides. These stacked trait crops enable farmers to spray mixtures of weedkillers freely, instead of having to apply them carefully in order to spare crops.²⁶ Simple arithmetic indicates that this will double or triple the amount of herbicide applied to a given field.

In 2011 Dow released its multi-herbicide-tolerant soybean, engineered to tolerate being sprayed with glyphosate, glufosinate, and 2,4-D³⁴ – an ingredient of the defoliant Agent Orange. In 2012 Dow sparked public outrage when it applied to the US Department of Agriculture to commercialise its 2,4-D-tolerant sweetcorn – a product that, unlike maize destined for animal feed, is intended for people's dinner plates.³⁵

Weed scientists warn that such multi-herbicide-tolerant crops will cause an increase in 2,4-D use, trigger an outbreak of still more intractable weeds resistant to both glyphosate and 2,4-D, and undermine sustainable approaches to weed management.³³

In fact, weed species that are resistant to dicamba,³⁶ to 2,4-D,³⁷ and to multiple herbicides³⁸ already exist.

Most stacked-trait superweeds emerge through what is known as selection pressure, where only those weeds that can tolerate herbicide survive to pass on their genes.

But there is another route through which superweeds can emerge: cross-pollination of GM herbicide-tolerant crops within the crop species or with wild relatives. "Stacked trait" multi-herbicide-resistant oilseed rape (canola) plants have already appeared as a result of accidental cross-pollination between GM crops engineered to tolerate different herbicides. As early as 1998, oilseed rape plants were found that tolerated up to three different herbicides.³⁹

A Canadian government study showed that after just 4–5 years of commercial growing, GM oilseed rape engineered to tolerate different single herbicides had cross-pollinated to create stacked trait plants resistant to up to three broad-

spectrum herbicides, posing a serious problem for farmers.^{22,23,24}

5.2.4. Conclusion

GM herbicide-tolerant crops have led to massive increases in herbicide use and a resulting spread of herbicide-resistant weeds. Farmers

have to resort to spraying more herbicide, or mixtures of herbicides, to try to control weeds. This “chemical treadmill” model of farming is especially impractical for farmers in the Global South, who cannot afford to buy more or different herbicides in an effort to control resistant weeds.

5.3 **Myth:** No-till farming with GM crops is environmentally friendly **Truth:** Claims of environmental benefits from GM no-till farming are unsound

GM proponents claim that GM herbicide-tolerant crops, especially GM Roundup Ready (RR) soy, are environmentally friendly because they allow farmers to adopt the no-till system of cultivation. No-till farming avoids ploughing in order to conserve soil and water, and supposedly to reduce carbon dioxide emissions. In no-till cultivation of GM Roundup Ready soy, weeds are controlled through herbicide applications rather than mechanically, through ploughing.

There are at least two problems with this argument:

- No-till or low-till farming can be – and is – practised in chemically-based and agroecological farming. Farmers do not have to adopt GM crops or use herbicides to practise no-till.
- Claims of environmental benefits for GM crops with no-till cultivation have been shown

to be misleading. One study compared the environmental impacts of growing GM RR and non-GM soy, using an indicator called Environmental Impact Quotient (EIQ). EIQ assesses the negative environmental impacts of the use of pesticides and herbicides on farm workers, consumers and ecology (fish, birds, bees and other beneficial insects). The study found that in Argentina, the negative environmental impact of GM soy was higher than that of non-GM soy in both no-till and tillage systems because of the herbicides used. Also, the adoption of no-till raised the EIQ, whether the soy was GM RR or non-GM. The main reason for the increase in herbicides used in no-till systems was the spread of glyphosate-resistant superweeds.⁴⁰

We conclude that claims of environmental benefits from no-till farming with GM crops are unjustified.

Herbicide-tolerant crops undermine sustainable agriculture

“Agricultural weed management has become entrenched in a single tactic – herbicide-resistant crops – and needs greater emphasis on integrated practices that are sustainable over the long term. In response to the outbreak of glyphosate-resistant weeds, the seed and agrichemical industries are developing crops that are genetically modified to have combined resistance to glyphosate and synthetic auxin herbicides. This technology will allow these herbicides to be used over vastly expanded areas and will likely create three interrelated challenges for sustainable weed management. First, crops with stacked herbicide resistance are likely to increase the severity of resistant weeds. Second, these crops will facilitate a significant increase in herbicide use, with potential negative consequences for environmental quality. Finally, the short-term fix provided by the new traits will encourage continued neglect of public research and extension in integrated weed management.” – Mortensen DA, et al. Navigating a critical juncture for sustainable weed management. BioScience 2012; 62: 75-84³³

5.4 **Myth:** GM Bt crops reduce insecticide use

Truth: GM Bt crops merely change the way in which insecticides are used

GM proponents claim that GM Bt crops reduce insecticide use, as farmers do not have to spray chemical insecticides. But this claim does not stand up to analysis, since the Bt gene turns the plant itself into an insecticide and because pest adaptation makes the GM pesticide less effective over time, making it necessary for farmers to revert to the use of chemical pesticides after just a few years. The genetically modified insecticide is present in active form in every part of the crop, including the parts that people and animals eat.

So Bt crops do not reduce or eliminate insecticides. They temporarily change the type of insecticide and the way in which it is used – from sprayed on, to built in. But in the long term, use of chemical pesticides must be resumed, as long as the industrial agricultural model is followed.

Even if we choose to ignore this factor and only consider the temporary reduction in chemical insecticide sprays due to Bt crops, the figure is unspectacular (see 5.2, above) – a reduction of 64.2 million pounds (29.2 million kg) over the first thirteen years of GM crop cultivation in the United States. This reduction is swamped by the massive increase in pesticide use resulting from the adoption of GM herbicide-tolerant crops, which has caused farmers to spray 383 million more pounds (174 million kg) of herbicides than they would have done in the absence of GM herbicide-tolerant seeds (herbicides are technically pesticides).⁹

Even the modest reduction in chemical insecticides attributed to GM Bt crops is proving unsustainable, due to the emergence of pests resistant to Bt toxin and secondary pests, as explained below. Moreover, there is a question mark over whether Bt crops can truly be said to have reduced chemical insecticide use in view of changes in the types of insecticides used and in the methods of application.

5.4.1. Resistant pests are making Bt technology redundant

GM Bt insecticidal crops express the Bt toxin in every cell for their entire lifetime, constantly exposing pests to the toxin. This is different from the traditional use of natural Bt as a spray, where the targeted pests are only exposed for a brief period before the Bt breaks down in daylight. Exposing pests to a pesticide for long periods of time inevitably speeds up the emergence of resistant pests, since selective pressure eliminates all but the most resistant pests, which then reproduce and pass on their genes.

For this reason, Bt crop technology sometimes enjoys short-term success in controlling pests but is soon undermined by the emergence of pests resistant to the toxin.^{43,44,45} By 2009, the western corn rootworm had evolved resistance to a Bt maize specifically engineered to target the pest that was first commercialised only six years previously.⁴⁶ Bt-resistant rootworm populations have been reported in Iowa^{46,47} and Illinois.⁴⁸

5.4.2. The “refuge” concept breaks down

Farmers are encouraged to plant “refuges” of non-Bt crops as a resistance management strategy to delay the emergence of Bt-resistant pests. The idea is that the non-Bt crop acts as a refuge where Bt-susceptible pests can survive, ensuring the existence of a population of Bt-sensitive pests to mate with any Bt-resistant pests that survive in the adjacent field where the Bt crop is under cultivation. The theory is that the Bt-susceptible pest population will dilute out the Bt-resistant population that survives in the Bt crop, assuring that the predominant population is Bt-susceptible.

But a study on rootworm resistance in Iowa found that refuges were redundant in the case of substantial Bt-resistant rootworm populations, as the pests were able to live and reproduce in Bt maize fields. The study concluded, “Even with resistance

management plans in place, sole reliance on Bt crops for management of agriculture pests will likely hasten the evolution of resistance in some cases.⁴⁶

Also, the effectiveness of refuges relies on the Bt crops expressing doses of Bt toxin that are high enough to kill pests, and the non-Bt refuges remaining free from Bt toxin-expressing genes. But cross-pollination between GM Bt maize has been found to cause “low to moderate” Bt toxin levels in the refuge plants,⁴⁹ making refuges less effective.

5.4.3. Secondary pests attack Bt crops

Nature abhors a vacuum. So even when Bt toxin succeeds in controlling a primary pest, secondary pests move into the ecological niche. For instance, in the United States, the Western bean cutworm has increased significantly in Bt maize fields.⁵⁰ In China and India, Bt cotton was initially effective in suppressing the target pest, the boll weevil. But secondary pests that are resistant to Bt toxin, especially mirids and mealy bugs, soon took its place.^{51,52,53,54,55,56}

Two studies from China on GM Bt insecticidal cotton show that GM Bt technology is already failing under the onslaught of secondary pests:

A study of 1,000 farm households in five provinces found that farmers noticed a substantial increase in secondary pests after the introduction of Bt cotton. The researchers found that the initial reduction in pesticide use in Bt cotton cultivars was “significantly lower than that reported in research elsewhere” and that “more pesticide sprayings are needed over time to control emerging secondary pests” such as aphids, spider mites, and lygus bugs. In addition, a quarter of the farmers thought Bt cotton yielded less than non-GM varieties. Close to 60% said that overall

production costs had not decreased, due to the higher price of Bt cotton seed.⁵⁷

Field trials conducted over ten years in northern China show that mirid bugs have increased in cotton and multiple other crops, in proportion to a regional increase in Bt cotton adoption. The researchers’ analyses show that “Bt cotton has become a source of mirid bugs and that their population increases are related to drops in [chemical] insecticide use in this crop.” Moreover, mirid bug infestation of other food crops (Chinese dates, grapes, apples, peaches, and pears) increased in proportion to the regional planting area of Bt cotton.⁵⁸

It is clear from these developments that GM Bt technology is not a “silver bullet” solution but is economically and environmentally unsustainable, as farmers who have paid premiums for Bt insecticidal seed have had to return to spraying costly and toxic pesticides.

5.4.4. Bt cotton farmers don’t always give up insecticides

GM proponents often assume that farmers who adopt Bt crops give up chemical insecticides – but this is not necessarily the case. Tabashnik (2008) reported that while bollworms have evolved resistance to Bt toxin in one type of GM cotton, this has not caused widespread crop failure because “insecticides have been used from the outset” to control the pest.⁴⁵ So claims of reductions in insecticide use from Bt crop adoption are unreliable unless there is evidence that the farmer does not use chemical insecticides.

Moreover, most Bt crops currently commercialised or in the pipeline have added herbicide tolerance traits and so are likely to be grown with herbicides.⁵⁹ It is with good reason that one independent scientist

Pesticide use number-crunching

The most optimistic claim for reduced pesticide use from GM crops, in a paper by the private consultancy firm to the GM industry, P G Economics, and based on “farm-level impact data” from an unnamed source, is 6.9%.⁴¹

In 2008 in the US, according to official government data, GM crop acres required over 26% more pounds of pesticides per acre than acres planted to conventional varieties.⁹

A 2011 study by French government scientists found that pesticide use could be reduced by 30% without impairing yields or farm income⁴² – and without GM crops.

has called GM crops “pesticide plants”.⁶⁰

5.4.5. Hidden chemical insecticides in Bt maize

Studies claiming reductions in insecticide use due to Bt crops have previously focused on insecticides that are applied to the soil or sprayed onto the plant after it has begun to grow. They may neglect to mention a different, potentially environmentally destructive type of pesticide: those that are applied to the seed before it sprouts.

According to a study by US entomologists, all commercially available rootworm-directed Bt maize seed is now treated before it is planted with the controversial chemical insecticides known as neonicotinoids. The authors suggested that the adoption of Bt maize “may shift insecticide use patterns” from sprayed insecticides to such seed treatments.⁶¹

So GM Bt crops may have done little more than help cause a shift in the type and means of application of chemical insecticide, rather than reducing or eliminating such chemicals. Where insecticides used to be applied to the soil or the plant while it is growing, now they are applied to the seed before planting.

Dr Doug Gurian-Sherman, senior scientist at the Union of Concerned Scientists, commented that neonicotinoid treatments on Bt maize seed aim to kill the insect pests that are not well controlled by Bt toxins. He added that these seed treatments are not confined to Bt maize: most maize seed, apart from organic, and an increasing proportion of the seed of other row crops, is now routinely treated with neonicotinoids.^{62,63}

Neonicotinoids are systemic insecticides, meaning that they spread throughout all tissues of the crop plant as it grows and are even present in the pollen and nectar. Like the Bt toxin engineered into GM plants, neonicotinoids differ from sprayed insecticides in that they are persistently present in the growing plant and always active. Because of this long exposure period, pests are more likely to develop resistance to them, and non-target and beneficial insects are more likely to be exposed, too.

Neonicotinoids are toxic to a wide variety of beneficial creatures, including some that help protect crops.^{64,65} They have been found to have highly toxic

effects even at very low doses because they persist over long periods in soil and water.⁶⁶ The rise in the use of neonicotinoid seed treatments has been implicated in bee die-off and colony collapse.^{67,68} Bees living near agricultural fields have been found to be exposed by multiple routes, including contaminated wild flowers growing near fields, and neonicotinoids have been found in dead bees.⁶⁸

The chief – seemingly the only – concern of defenders of Bt crop technology is the volume of insecticide applied as sprays after planting. If that volume decreases, they consider that Bt crops reduce insecticide use. But they are not reporting the whole story. The case of neonicotinoid seed treatments shows that it is necessary to consider other types of insecticide applications, how toxic the insecticides are (based on peer-reviewed research, not industry data), how they behave and persist in the environment, and the acreage over which they are applied.⁶²

Given the extreme toxicity of neonicotinoids to bees and other beneficial organisms, their high degree of persistence and spread, and the vast acreage over which they are applied, it is questionable whether seed-treated Bt crops have had a beneficial effect on insecticide use.

5.4.6. Conclusion

Studies claiming that Bt crops reduce insecticide use have failed to take into account important aspects such as:

- The toxicity to non-target and beneficial organisms of the engineered Bt toxins
- The amount, type, and toxicity of insecticides actually used by farmers in the field even when Bt seeds are used – reflecting pest resistance and ineffectiveness of refuges
- Changes in the way insecticides are used, such as the transition from sprayed pesticides to use of insecticidal seed treatments.

Also, when evaluating the impact of GM Bt crops on insecticide use, a more useful comparator than chemically-grown non-GM crops would be non-GM crops under organic or integrated pest management, where insecticide use is reduced or eliminated. This would quickly make clear which farming methods can best reduce insecticide use while maximizing yield and farmer incomes.

5.5 Myth: GM Bt crops only affect target pests and their relatives

Truth: GM Bt crops are not specific to pests but affect a range of organisms

GM proponents claim that Bt crops only affect target pests and their close relatives. Regulators have uncritically accepted this claim and allowed the commercialisation of Bt crops with a minimum of oversight. But research studies show that this assumption is false.

5.5.1. Bt crops harm soil organisms

Mycorrhizal fungi benefit plants by colonising their roots, helping them take up nutrients, resist disease, and tolerate drought. A study comparing Bt and non-Bt maize found a lower level of mycorrhizal colonisation in the roots of Bt maize plants. Residues of Bt maize plants, ploughed under at harvest and kept mixed with soil for up to four months, suppressed soil respiration (carbon dioxide production), markedly altered bacterial communities, and reduced mycorrhizal colonisation.⁶⁹ A separate field study on Bt maize residues ploughed into soil after harvest confirmed that Bt toxin resisted breakdown and persisted in soil for months.⁷⁰

Arbuscular mycorrhizal fungi (AMF) are beneficial fungi that penetrate the root cells of the host plant. Bt maize has been found to decrease arbuscular mycorrhizal fungi (AMF) colonisation of the roots, compared with non-GM maize.^{71,72}

5.5.2. Bt crops harm non-target and beneficial insects

GM Bt insecticide-producing crops have been found to have toxic effects on non-target insect populations,⁷³ including butterflies^{74,75,76} and beneficial pest predators such as ladybirds^{77,78} and lacewings.⁷⁹ Bt crops have more negative than positive impacts on beneficial insects.⁸⁰ Bt toxin impacts bee learning behaviour, interfering with bees' ability to find nectar sources for food.⁸¹

5.5.3. Bt crops harm aquatic organisms

A study conducted in Indiana, USA found that

Bt insecticide released from GM Bt maize was polluting 25% of streams tested.⁸² Other studies have found that GM Bt maize biomass is toxic to aquatic⁸³ and soil organisms.⁶⁹ Water fleas (an organism often used as an indicator of environmental toxicity) fed GM Bt maize showed toxic effects including reduced fitness, higher mortality, and impaired reproduction.⁸⁴

5.5.4. Conclusion

Bt crops are not specific to the target pests and close relatives but negatively affect a range of non-target organisms, including beneficial insects that help protect crops.

5.6 **Myth:** Roundup is a benign and biodegradable herbicide

Truth: Roundup persists in the environment and has toxic effects on wildlife

Manufacturers claim that Roundup, the glyphosate-based herbicide used on most GM crops, breaks down quickly and harmlessly in the environment. But research shows that this is untrue:

- In soil, glyphosate has a half-life (the length of time taken to lose half its biological activity) of between 3 and 215 days, depending on soil conditions.^{85,86} In water, glyphosate's half-life is 35–63 days.⁸⁷
- Although glyphosate binds well to soil particles, the Danish National Pesticide Monitoring Program showed that glyphosate and its main breakdown product AMPA are washed out of the root zone of clay soils in concentrations that exceed the acceptable quantities for drinking water (0.1 µg/l), with maximum values of over 5 µg/l.⁸⁸
- Glyphosate was detected in between 60 and 100% of air and rain samples taken in the American Midwest during the crop growing season in the American Midwest, where Roundup Ready GM crops are widely planted.⁸⁹
- Glyphosate and its main breakdown product, AMPA, were detected in streams in the American Midwest during the crop growing season.⁹⁰
- Glyphosate is toxic to earthworms⁹¹ and reduces bird populations due to habitat changes.⁹²
- Roundup is highly toxic to amphibians. A study in a natural setting found that Roundup application at the rate recommended by the manufacturer eliminated two species of tadpoles and nearly exterminated a third species, resulting in a 70% decline in the species richness of tadpoles. Contrary to common belief, the presence of soil does not reduce the chemical's effects.⁹³ Further experiments with lower concentrations, well within levels to be expected in the environment, still caused 40% amphibian mortality.⁹⁴
- Claims that Roundup and glyphosate are

safe for human health and the environment have been overturned in courts in the United States⁹⁵ and France. The French court forced Monsanto to withdraw advertising claims that Roundup is biodegradable and leaves the soil clean after use.⁹⁶

Regulatory bodies around the world have not caught up with the state of the science on Roundup and glyphosate. Instead they continue to rely on decades-old studies, mostly sponsored by manufacturers, to claim it is safe. An objective up-to-date review of Roundup and glyphosate's persistence and toxicity is long overdue.

5.7 **Myth:** Roundup is a benign herbicide that makes life easier for farmers

Truth: Roundup causes soil and plant problems that impact yield

GM Roundup Ready crops are marketed on the basis that Roundup is a safe herbicide that simplifies weed control and makes the farmer's life easier. But recent studies show that Roundup and glyphosate can accumulate in plants, have negative effects on soil organisms, and harm the growth and health even of soy plants that are genetically engineered to tolerate it. These effects may be partly responsible for yield decline and disease outbreaks found in GM Roundup Ready soy and maize.

5.7.1. **Glyphosate causes or exacerbates plant diseases**

"When you spray glyphosate on a plant, it's like giving it AIDS."

– Michael McNeill, agronomist and farm consultant⁹⁷

Manufacturers claim that glyphosate kills plants by inhibiting an enzyme necessary for plant growth. But research shows that glyphosate has another way of killing plants: it makes the plant more susceptible to disease, potentially leading to the plant's death from the disease. Spraying glyphosate on a plant is, as US agronomist Michael McNeill said, "like giving it AIDS".

One possible mechanism for this process is offered in a study on GM RR soybeans. The study found that once glyphosate is applied to the plant, it accumulates in the plant tissues and then is released into soil through the roots. There, it stimulates the growth of certain fungi, notably *Fusarium*, a fungus that causes wilt disease and sudden death syndrome in soy plants.⁹⁸ Other studies confirm the link between glyphosate applications and increased infection with *Fusarium*.^{99,100,101,102,103}

Interestingly, one study found that *Fusarium* colonisation of roots was greater in GM RR soy compared with non-GM soy even when glyphosate is not applied. The researchers suggested that this was due to an unintended change in the GM crop brought about by the genetic engineering process.⁹⁸

Fusarium is of especial concern because it does not only affect plants. It produces toxins that can enter the food chain and harm humans¹⁰⁴ and livestock. In pigs, *Fusarium*-contaminated feed impairs reproduction¹⁰⁵ and increases stillbirths.¹⁰⁶

Glyphosate has also been shown to increase the incidence and severity of other fungal diseases in plants, including take-all in wheat and *Corynespora* root rot in soy.^{107,108}

In an attempt to combat soil-borne diseases such as *Fusarium*, Monsanto markets its new Roundup Ready 2 Yield soy seed with a proprietary fungicide/insecticide coating.¹⁰⁹ In other words, Monsanto has created a problem (fungal infection) by genetically modifying the soy seeds and is then profiting from a techno-fix "solution" to that problem. Such chemical treadmills are profitable for seed and chemical companies, but hurt farmers, consumers, and the environment.

5.7.2 **Glyphosate makes nutrients unavailable to plants**

Glyphosate binds vital nutrients such as iron, manganese, zinc, and boron in the soil, preventing plants from taking them up.¹¹⁰ So GM soy plants treated with glyphosate have lower levels of essential nutrients and reduced growth, compared with GM and non-GM soy controls not treated with glyphosate.¹¹¹ Lower nutrient uptake may partly account for the increased susceptibility of GM soy to disease, as well as its lower yield. It could also have implications for humans and animals that eat the crop, as it is less nutritious.

5.7.3 **Glyphosate impairs nitrogen fixation**

The yield decline in GM RR soy may be partly due to glyphosate's negative impact on nitrogen fixation, a process that is vital to plant growth and depends on the beneficial relationship between the soy plants and nitrogen-fixing bacteria. In young RR soy plants, glyphosate has been found to delay nitrogen

fixation and reduce the growth of roots and sprouts, resulting in yield decline. In drought conditions, yield can be reduced by up to 25%.¹¹²

The mechanism may be explained by another study, which found that glyphosate enters root nodules and negatively affects beneficial soil bacteria that are essential for the nitrogen fixation process. It inhibits root development, reducing root nodule biomass by up to 28%. It also reduces by up to 10% an oxygen-carrying protein, leghaemoglobin, which helps bind nitrogen in soybean roots.¹¹³

To counter such problems, seed and agrochemical companies have begun to market a “techno-fix” in the form of nitrogen-fixing bacterial inoculants, which are either applied to soy seed before sale or to the soil after sowing. The companies claim that this will increase yield potential.¹¹⁴ However, a soybean inoculant evaluation trial conducted in Iowa concluded, “none of the inoculants resulted in a significant yield increase over the non-inoculated plots”.¹¹⁵ Inevitably, the cost of such treatments, even when they do not work, are borne by farmers.

5.7.4. Conclusion

Roundup and other glyphosate herbicides are not benign but have negative effects on soil and crops, some of which impact plant health and yield. Glyphosate’s link with *Fusarium* infection is especially serious as *Fusarium* can harm humans and livestock.

5.8 Myth: GM crops help biodiversity

Truth: The herbicides used with GM crops harm biodiversity

“Many farmland birds rely on seeds from weeds for their survival and the [UK] government’s farm scale trials showed that GM beet and GM spring oilseed rape [canola] reduced seed numbers by up to 80% compared with conventional beet and oilseed rape. The commercialisation of GM beet and oilseed rape could be disastrous for birds. The government is committed to reversing bird declines and has promised to ban GM crops if they damage the environment. The Farm Scale Evaluations (FSEs) show that two GM crops harm the environment and ministers now have no choice but to refuse their approval.”

– Dr Mark Avery, director of conservation at the UK’s Royal Society for the Protection of Birds (RSPB) and member of the UK government’s Science Review Panel¹¹⁶

In the early 2000s the UK government conducted three-year farm-scale trials to examine the impacts of managing GM herbicide-tolerant crops (maize, sugar beet and canola) on farmland biodiversity. Each field was divided in half, with one half planted with a non-GM variety managed according to the farmer’s normal practice, and the other half planted with a GM herbicide-tolerant variety. The GM beet was tolerant to the glyphosate-based herbicide Roundup and the GM maize and canola were tolerant to glufosinate ammonium. The herbicide-tolerance genes enabled farmers to spray the crops with these broad-spectrum (kill-all) herbicides, killing all weeds but allowing the crop to survive.

Weeds provide food and habitat for birds, insects, and other wildlife, so the farm-scale trials recorded levels of weeds and invertebrates in the fields and field margins. Selected groups of other organisms with wider foraging ranges (beetles, bees, and butterflies) were also studied. The trials looked at whether the changes in management associated with GM crops would reduce weed

levels and have wider impacts on farmland biodiversity.

The findings showed that the cultivation of GM herbicide-resistant crops reduces wildlife populations and damages biodiversity, due to the effects of the broad-spectrum herbicides with which they are grown.^{117,118,119,120,121,122}

GM herbicide-resistant maize was found to be better for wildlife than non-GM maize, with more weed species and insects in and around the field.^{117,118,119,120,121,122} But the GM maize was measured against a non-GM maize grown with atrazine, a toxic herbicide that was banned in Europe soon after the trials ended. With such a toxic control, it was highly likely that the GM maize would be found to be better for wildlife. A more useful comparator would have been a maize grown in an organic or integrated pest management (IPM) system, which eliminate or reduce herbicide use.

In the EU, this is not a purely idealistic notion. A 2009 European Directive asks member states to implement national plans to adopt integrated pest management and alternative approaches in order to reduce pesticide use.¹²³

5.9 Myth: GM crops bring economic benefits to farmers

Truth: Economic impacts of GM crops on farmers are variable

"Perhaps the biggest issue raised by these results is how to explain the rapid adoption of GE crops when farm financial impacts appear to be mixed or even negative."

– J. Fernandez-Cornejo, W. D. McBride,
The adoption of bioengineered crops, US
Department of Agriculture⁶

The question of economic impacts of GM crops on farmers is complex and a thorough examination is beyond the scope of this report. Results vary and depend on many factors, including:

- Suitability of the crop for local conditions
- Climate
- Pest and disease prevalence
- Cost of weed management
- Subsidies and incentives offered by governments or corporations
- Cost of seed
- Availability of markets for the crop.

The following studies give an overview of the issue.

Fernandez-Cornejo (2002)

This report on farm-level economic impacts of adopting GM crops found that they were "mixed or even negative". The report, mostly based on data from USDA surveys, found that adoption of herbicide-tolerant maize had a positive effect on net returns, but the effect was negative for Bt maize. GM soybeans had no effect either way.⁶

Gómez-Barbero (2006)

This review for the European Commission of the economic impact of the main GM crops worldwide found that herbicide-tolerant soybeans had a negative effect on US farmers' income. But the same crop brought income gains to Argentine farmers, due to lower prices for GM seed in that country.¹²⁴

Why do US farmers adopt GM soy if it brings no financial gain? The authors suggested that the reason may be simpler weed control,¹²⁴ though

the data cited to back up this claim pre-date the explosion of herbicide-resistant superweeds that has caused the cost of GM soy production to rise (see 5.2).

The review found that Bt cotton in China had produced economic gains for farmers, mostly because of reduced expenditure on pesticide sprays. Bt cotton in India was claimed to provide economic benefits, though with considerable "local variability".¹²⁴ These studies were also carried out before the full impact of pest resistance and emergence of secondary pests was experienced by Chinese and Indian farmers.

Morse (2005)

This study found that Bt cotton in India produced better profit margins for farmers than non-GM cotton. However, the authors pointed out that these benefits will only be sustained if pests do not evolve resistance to Bt cotton.¹²⁵ Recent studies suggest that they are already evolving resistance (see 5.4).

These findings are confirmed by a leaked advisory from the Indian government which blamed Bt cotton for the spate of farmer suicides across the subcontinent. The advisory stated, "Cotton farmers are in a deep crisis since shifting to Bt cotton. The spate of farmer suicides in 2011–12 has been particularly severe among Bt cotton farmers." The advisory added that Bt cotton's success had only lasted five years. Since then, yields had fallen and pest attacks had increased: "In fact cost of cotton cultivation has jumped... due to rising costs of pesticides. Total Bt cotton production in the last five years has reduced."¹²⁶

5.9.1. The rising cost of GM seed

An important factor in assessing the economic impact of GM crops is the cost of seed. In the United States, where GM firms dominate the seed market, a 2009 report documents that prices for GM seeds have increased dramatically compared with prices for non-GM and organic seeds. This cut average farm incomes for US farmers growing GM crops. The \$70 per bag price set for RR2 soybeans

for 2010 was twice the cost of conventional seed and reflected a 143% increase in the price of GM seed since 2001.¹²⁷

US farmers have grown increasingly concerned about the high price and poor performance of GM seed. A 2011 media report said that the seed companies had responded by withdrawing a high-performing non-GM variety of maize, which gave higher yields than GM varieties. The report added that the companies are hiking the prices of herbicides used by non-GM farmers to artificially increase the cost of non-GM production.¹²⁸

Farmers have little choice but to tolerate such price hikes because of consolidation within the seed industry. In other words, the GM industry dictates which seed varieties are available. In 2008, 85% of GM maize patents and 70% of non-maize GM plant patents in the US were owned by the top three seed companies: Monsanto, DuPont, and Syngenta. Even these three companies are not independent of each other but increasingly network to cross-license GM seed traits.¹³¹

The largest of the big three companies is Monsanto. In 2010 Monsanto raised its prices for its RR2 soybeans and SmartStax maize seeds so steeply that the US Department of Justice launched an investigation into the consolidation of agribusiness firms that has led to anti-competitive pricing and monopolistic practices. Farmers actively gave evidence against companies like Monsanto.^{132,133}

The same pattern has been reported in India. Moreover, as prices of GM Bt cotton seed have escalated,¹³⁴ non-GM varieties – in some cases better-performing than the GM varieties – have been withdrawn from the market.^{135,136} The result is that farmers are forced into dependency on the

GM industry. Such reports expose claims that GM crops increase “farmer choice” as misleading.

5.9.2. Conclusion

The economic impacts of GM crops on farmers are variable and depend on complex factors. However, consolidation in the seed market has led to steep increases in the price of GM seed as compared with non-GM seed. This consolidation has also led to competing high-performing non-GM seed varieties being withdrawn from the market, restricting farmer choice.

The importance of independent information

Some who claim that GM crops bring economic benefits to farmers cite upbeat reports written by Graham Brookes and Peter Barfoot. But such reports are not independent. Brookes and Barfoot are the directors

of a private consultancy firm called PG Economics, which has GM and agrochemical firms as its primary clients.¹²⁹ Generally, PG Economics' reports are commissioned by GM firms or industry lobby groups such

as Agricultural Biotechnology in Europe,¹³⁰ whose members include the large GM seed companies. Most PG Economics reports are not peer reviewed and rely heavily on industry data.

5.10 Myth: GM crops can “coexist” with non-GM and organic crops

Truth: Co-existence means widespread contamination of non-GM and organic crops

“OK, we know that cross-pollination will occur but we’ve got thirty years of experience to say we know how far pollen will travel. And therefore what we’ve done is we’ll grow a GM crop at a distance away from a non-GM crop, so the people that want non-GM can buy non-GM, and the people that want GM can buy GM. The two will not get mixed up. Everybody will have the right to choose.”

– Paul Rylott, seed manager for Aventis CropScience (now Bayer)¹³⁷

The GM industry used to claim that GM contamination of non-GM crops could not occur. After it became clear that this was false, it shifted the argument to lobbying for “co-existence” of GM, non-GM, and organic crops. The industry now argues that farmers should be able to choose to plant GM crops if they wish and says that no serious problems are caused for non-GM and organic farmers.

But experience has shown that the arrival of GM crops in a country removes choice. “Coexistence” rapidly results in widespread contamination of non-GM crops, resulting in lost markets. Contamination occurs through cross-pollination, spread of GM seed by farm machinery, and inadvertent mixing during storage. Farmers are gradually forced to grow GM crops or have their non-GM crops contaminated.

Scientific studies confirm that GM contamination is unavoidable once GM crops are grown in a region. For example, GM herbicide-tolerant oilseed rape (canola) seed can persist and remain viable in soil for years. GM herbicide-resistant “volunteers” – plants that were not deliberately planted but are the result of germination of residual GM seeds from crops previously grown in the field – were found growing ten years after the GM oilseed rape crop had been planted.¹³⁸ GM herbicide-resistant oilseed rape was found to be thriving in the wild in North Dakota,

often far from areas of agricultural production. GM genes were present in 80% of the wild canola plants found.^{139,140}

5.10.1. Who is liable for GM contamination?

In countries where legal liability for GM contamination is clearly established, GM crop cultivation has become severely restricted. In Germany, a law has been passed making farmers who grow GM crops liable for economic damages to non-GM and organic farmers resulting from GM contamination.^{141,142} The law has virtually halted the planting of GM crops in the country because farmers are not prepared to accept liability for contamination.¹⁴²

The fact that farmers who previously chose to grow GM crops have ceased to do so because of the fact that they could be held liable for damages is clear evidence that coexistence is impossible. In light of this, it is not surprising that the GM seed industry has lobbied forcefully against the implementation of similar liability laws in the US and Canada.

The GM seed industry also knows it cannot contain or control its GM genes. In February 2011, after years of industry lobbying, the EU dropped its policy of zero tolerance of animal feed with unapproved GMOs, allowing contamination of up to 0.1%.^{143,144} In doing so, it granted industry release from liability for damages resulting from GM contamination with up to 0.1% of GM crop varieties (“Low Level Presence”) that are under evaluation but not yet approved in the EU.

In the United States, federal courts have recognised that GM crops are likely to contaminate non-GM crops. Two court rulings reversed US Department of Agriculture (USDA) approvals for the commercial planting of GM sugar beet and GM alfalfa. The courts ordered the USDA to halt planting of the GM crops until it had completed an environmental impact statement

(EIS) on the environmental and economic effects of contamination of non-GM crops.

In the case of GM sugar beet, the USDA defied the court order and allowed farmers to continue planting the crop while it worked on the EIS. In the case of GM alfalfa, USDA completed an EIS in which it admitted that cross-contamination with non-GM alfalfa could occur and that the economic interests of non-GM growers could be harmed. But, bowing to heavy lobbying from the GM industry, USDA “deregulated” GM alfalfa, an action that superseded the court ruling and allowed planting of the crop without restriction.¹⁴⁵

5.11 Myth: If GM contamination occurs, it is not a problem

Truth: GM contamination has had severe economic consequences for farmers, food and feed companies, and markets

"If some people are allowed to choose to grow, sell and consume GM foods, soon nobody will be able to choose food, or a biosphere, free of GM. It's a one way choice, like the introduction of rabbits or cane toads to Australia; once it's made, it can't be reversed."

– Roger Levett, specialist in sustainable development¹⁶³

GM contamination of crops has had severe economic consequences, threatening the livelihoods of farmers who receive premiums for growing organic and GM-free crops and blocking export markets to countries with strict regulations on GMOs.

Examples of GM contamination problems include:

- In 2011 an unauthorized GM Bt pesticidal rice, Bt63, was found in baby formula and rice noodles on sale in China.¹⁴⁶ Contaminated rice products were also found in Germany¹⁴⁷ and Sweden.¹⁴⁸ The same rice was found in rice products in New Zealand in 2008, leading to product recalls.¹⁴⁹ GM Bt rice has not been shown to be safe for human consumption. Periodic recalls of products contaminated with Bt63 rice continue to be reported even today in Europe.
 - In 2009 an unauthorized GM flax called CDC Triffid contaminated Canadian flax seed supplies, resulting in the collapse of Canada's flax export market to Europe.^{150,151}
 - In 2006 an unapproved experimental GM rice, grown only for one year in experimental plots, was found to have contaminated the US rice supply and seed stocks.¹⁵² Contaminated rice was found as far away as Africa, Europe, and Central America. In 2007 US rice exports were down 20% from the previous year as a result of the GM contamination.¹⁵³ In 2011 the company that developed the GM rice, Bayer, agreed to pay \$750 million to settle lawsuits brought by 11,000 US farmers whose rice crops were contaminated.¹⁵⁴ A court ordered Bayer to pay \$137 million in damages to Riceland, a rice export company, for loss of sales to the EU.¹⁵⁵
- In Canada, contamination from GM oilseed rape has made it virtually impossible to cultivate organic, non-GM oilseed rape.¹⁵⁶
 - Organic maize production in Spain has dropped as the acreage of GM maize production has increased, due to contamination by cross-pollination with GM maize.¹⁵⁷
 - In 2000 GM StarLink maize, produced by Aventis (now Bayer CropScience), was found to have contaminated the US maize supply. StarLink had been approved for animal feed but not for human consumption. The discovery led to recalls of StarLink-contaminated food products across the US, spreading to Europe, Japan, Canada, and other countries. Costs to the food industry are estimated to have been around \$1 billion.¹⁵⁸ In addition, the US government bore indirect costs of between \$172 and \$776 million through the USDA's Loan Deficiency Payments Program, which offers producers short-term loans and direct payments if the price of a commodity crop falls below the loan rate.¹⁵⁹ Aventis paid out \$110 million to farmers who brought a class action suit against the company¹⁶⁰ and spent another \$110 million buying back StarLink-contaminated maize.¹⁵²

As no official body keeps records of GM contamination incidents, Greenpeace and Genewatch UK have stepped into the gap with their GM Contamination Register.¹⁶¹ In the years 2005–2007 alone,²¹⁶ contamination incidents were recorded in the database.¹⁶²

5.12 Myth: Horizontal gene transfer from GM crops is unlikely or of no consequence

Truth: GM genes can escape into the environment by horizontal gene transfer with potentially serious consequences

Most GM contamination incidents occur through cross-pollination, contamination of seed stocks, or failure to segregate GM from non-GM crops after harvest. But for years, scientists have warned that GM genes could also escape from GM crops into other organisms through a mechanism called horizontal gene transfer (HGT). HGT is the movement of genetic material between unrelated species through a mechanism other than reproduction. Reproduction, in contrast, is known as vertical gene transfer because the genes are passed down through the generations from parent to offspring.

GM proponents and government regulators often claim that, based on available experimental data, HGT is rare. The EU-supported website GMO Compass states, "So far, horizontal gene transfer can only be demonstrated under optimised laboratory conditions."¹⁶⁴ Alternatively, they argue that if it does happen, it does not matter, as GM DNA is no more dangerous than non-GM DNA.

But there are several mechanisms through which HGT can occur, some of which are more likely than others. HGT via some of these mechanisms occurs easily and frequently in nature. The consequences of HGT from GM crops are potentially serious, yet have not been adequately taken into account by regulators.

The basic mechanisms by which HGT could occur are:

- Uptake of GM DNA by bacteria
- Uptake of DNA from the digestive tract into the tissues of the organism
- Transmission of GM DNA via *Agrobacterium tumefaciens*, a bacterium that is often used to introduce GM genes into plants because of its natural ability to carry and transfer foreign DNA and to infect plants through wounds in their outer layer
- Gene transfer by viruses.

The following sections outline these mechanisms and provide a perspective on the frequency at

which these events can occur, as well as their potential impacts.

5.12.1. DNA uptake by bacteria

Bacteria are promiscuous. They are always exchanging DNA between themselves and taking up DNA from their environment. Some of this environmentally acquired DNA can be incorporated to their genome and may be expressed. There are two scenarios in which DNA uptake by bacteria could result in HGT of GM genes.

The first is the transfer of GM DNA from GM food into intestinal bacteria. DNA from a GM plant is released into the intestinal tract of the consumer during digestion. Contrary to frequent claims, GM DNA is not always broken down in digestion and can survive in sufficiently large fragments that can contain intact genes that are potentially biologically active (see 3.1.1, 3.6.2).

Bacteria of many different species are present in the digestive tract, some of which can take up DNA from their environment and incorporate it into their own DNA. In the case of GMOs, this could be problematic. For example, if the GM plant contained a gene for antibiotic resistance, the bacterium could incorporate that antibiotic resistance gene into its genome, and thereby become resistant to the antibiotic. If the bacteria in question happened to be pathogenic (disease-causing), this process would have created an antibiotic-resistant pathogen – a "superbug".

Since bacteria in the intestinal tract frequently exchange DNA, the creation of a superbug could be a two-stage process. First, the antibiotic resistance gene could initially be taken up and incorporated into a non-pathogenic bacterium in the intestinal tract. Subsequently, if a pathogenic bacterial species becomes part of the intestinal flora, the non-pathogenic bacterium could transfer the antibiotic resistance gene to the pathogenic

bacterium, thereby creating a “superbug”.

The transfer of GM genes from food to intestinal bacteria has been documented in a study on humans, which found that the intestinal bacteria of a person whose diet included soy carried sequences unique to the GM soy that was part of their diet.¹⁶⁵

The second scenario in which DNA uptake by bacteria could result in HGT of GM genes is the transfer of GM DNA to soil bacteria. Cultivation of transgenic crops leads to the degradation of GM plant material in the environment, liberating GM genes into the soil. Every cubic centimetre of soil contains thousands of different species of bacteria, only a small percentage of which have been identified and characterised. Some of the known soil bacteria can, and do, take up free DNA that may be present in the soil, incorporating that DNA into their genomes.¹⁶⁶ This could result in the transfer of GM genes to natural soil bacterial populations. Based on limited currently available data, this type of event has been calculated to be extremely rare.¹⁶⁷ However, it has been shown that GM DNA can persist in soil at detectable levels for at least a year,¹⁶⁸ increasing the likelihood of HGT.

In addition, we only know a small fraction of the soil bacteria that could potentially take up DNA from their environment.¹⁶⁶ Furthermore, if the uptake of a GM gene, for example for antibiotic resistance, gives the bacterium a survival and growth advantage, this can allow them to outcompete other bacterial strains in the presence of widely used antibiotics in agriculture and medicine. Therefore, this initial rare event could still result a significant environmental and health outcome.¹⁶⁹

5.12.2. DNA uptake during digestion of GM foods

A study on mice demonstrated that foreign DNA present in food can be transferred from the digestive tract to the bloodstream of animals that eat the food. This foreign DNA was also found in white blood cells and in the cells of many other tissues of the mice.¹⁷⁰ In a separate study, foreign DNA in a diet fed to pregnant mice was found in the organs of their foetuses and newborn

offspring. The foreign DNA was believed to have reached the foetus through the placenta.¹⁷¹

It has also been shown that GM DNA in feed can be taken up in the organs of the animals that eat it and can be detected in the meat and fish that people eat.^{172,173,174,175}

Most of the GM DNA in food is fragmented before it reaches the blood or tissues. However, a few copies of GM DNA large enough to contain the sequence of a full and functional gene will also be present in the digestive tract and can be taken up into the blood at lower frequency, where it can be transported by the blood and taken up by cells of some tissues or organs.¹⁷⁰ Once taken up by a cell, such a GM gene could be integrated into the DNA of the cell, causing either direct mutation of a host gene function or reprogramming the host cell to produce the protein for which that GM gene codes, or both.

At present, this scenario is speculative. Although it is clearly possible to detect transgenic DNA in the tissues of organisms that consume GM feed, no research has been published that shows that the GM DNA is expressed in the tissues of those organisms. It would be expected that if such expression did occur, it would not occur frequently. In order to find out whether such expression events actually occur, it would be necessary to conduct very large-scale studies – though identifying a suitable experimental design would be challenging.

It should be pointed out, however, that although such events may be of low frequency, because of the widespread consumption of GMOs by both humans and animals, the fact that such events are of low frequency does not eliminate them as important to the biosafety assessment of GMOs.

Though the mechanism is still unclear, GM feed has been found to affect the health of animals that eat it. GM DNA from soy was detected in the blood, organs, and milk of goats. An enzyme, lactic dehydrogenase, was found at significantly raised levels in the heart, muscle, and kidneys of young goats fed GM soy.¹⁷⁶ This enzyme leaks from damaged cells during immune reactions or injury, so high levels may indicate such problems.

5.12.3. Horizontal gene transfer by *Agrobacterium tumefaciens*

Agrobacterium tumefaciens (*A. tumefaciens*) is a soil bacterium that is often used to introduce GM genes into plants.

The introduction of GM genes into plants by infection with *A. tumefaciens* is carried out by exploiting a Ti plasmid – a small circular molecule of DNA that is naturally found in *A. tumefaciens*. When *A. tumefaciens* infects a plant, the Ti plasmid is introduced into the plant cells. Parts of the Ti plasmid may then insert themselves into the DNA of the plant.

Plant biotechnologists have adapted this natural process in order to introduce foreign DNA into plants and thereby produce GM crops. First, the naturally occurring genes of the Ti plasmid in the region that can insert into host plant cell DNA are removed and replaced with the GM gene of choice. The now genetically modified Ti plasmid is then introduced into *A. tumefaciens*, which in turn is used to infect plant cells. Once inside the plant cell, some of the genetically modified Ti plasmid can insert into host plant cell DNA, thereby permanently altering the genetic makeup of the infected cells.

Although *A. tumefaciens* is a convenient way of introducing new genes into plants, it can also serve as a vehicle for HGT from the GM plant to other species. This can happen via two mechanisms.

First, residual *A. tumefaciens* carried in a GM plant could infect plants of other species, thereby carrying the GM gene(s) from the intentionally genetically modified plant into other plants. *A. tumefaciens* can serve as a vehicle for HGT to hundreds of species of plants, since *A. tumefaciens* has been found to infect a wide range of plant species.

The second mechanism creates the risk that *A. tumefaciens* could pass GM genes on to an even wider range of species, including, but not limited to, plants. It consists of certain types of fungi functioning as intermediate hosts in the transfer of transgenes from GM *A. tumefaciens* to other organisms.

A 2010 study found that under conditions found in nature, *A. tumefaciens* introduced DNA

into a species of disease-causing fungi that is known to infect plants. The study also found that GM DNA sequences in the *A. tumefaciens* were incorporated into the DNA of the fungi. In other words, the *A. tumefaciens* was genetically engineering the fungi.

The authors concluded that in cases where a GM plant is infected with fungi, *A. tumefaciens* in the GM plant could infect the fungi, introducing GM genes into the fungi.¹⁷⁷ Such fungi could, in turn, pass the GM genes onto other plants that they infect.

Genetic engineers had previously assumed that *A. tumefaciens* only infects plants. But this study showed that it can infect fungi, a different class of organism. The study stated, “*A. tumefaciens* may be able to [genetically] transform non-plant organisms such as fungi in nature, the implications of which are unknown.”¹⁷⁷ The authors pointed out that *A. tumefaciens* is already known to transform – genetically modify – human cells in the laboratory.^{177,178}

One of the study’s co-authors, Andy Bailey, a plant pathologist at the University of Bristol, UK, said, “Our work raises the question of whether [*A. tumefaciens*’s] host range is wider than we had thought – maybe it’s not confined only to plants after all.”¹⁷⁹

The implications of this research are that it is possible that GM gene(s), once introduced by *A. tumefaciens* into a GM crop and released into the environment, could then be introduced into an organism outside the plant kingdom – in this case, a fungus – and genetically modify it. This would be an uncontrolled and uncontrollable process, with unpredictable consequences.

Implications of horizontal gene transfer through A. tumefaciens

Could *A. tumefaciens* transfer GM genes from a GM plant to another organism under realistic farming conditions? The answer depends on whether any *A. tumefaciens* carrying GM genes remains in the GM crop that is planted in open fields. Genetic engineers use antibiotics to try to remove the *A. tumefaciens* from the GM plant after the initial GM transformation process is complete in the laboratory. But this process has

been found to be unreliable and incomplete:

- A study on GM brassicas, potato and blackberry found that the use of three antibiotics failed to completely remove *A. tumefaciens*. Instead, the *A. tumefaciens* contamination levels increased from 12 to 16 weeks after the GM transformation process and the *A. tumefaciens* was still detected 6 months after transformation.¹⁸⁰
- A study on GM conifers found that residual *A. tumefaciens* remained in the trees 12 months after the genetic transformation but were not detected after this time in the same plants.¹⁸¹

However, these experiments only examined the first GM plant clones. In the GM development process, such GM clones go through a long process of back-crossing and propagation with the best-performing non-GM or GM plant relatives in order to try to produce a GM plant that performs well in the field and expresses the desired traits. The important question is whether *A. tumefaciens* carrying GM genes survives this back-crossing and propagation process and remains in the final GM plant that is commercialised.

To the best of our knowledge there have been no studies to assess whether any *A. tumefaciens* remains in the final commercialised GM plant. The study on GM conifers examined the initial GM clones that were grown on, not plants that had been cross-bred and propagated over several generations, as GM crops are before they are commercialised, so it does not provide an answer to this question.

However, this question should be answered before a GM variety is commercialised, in order to avoid unwanted consequences that could be caused by residual *A. tumefaciens* in the final GM plant. Examples of consequences that should be excluded are the transfer of insecticidal properties to bacteria, or of herbicide tolerance to other crops or wild plants. The study discussed above (5.12.3) shows that the introduction of GM genes into crop plants could have consequences to organisms outside the plant kingdom, through the mechanism of infection by fungi carrying *A. tumefaciens*, which in turn carry GM genes.¹⁷⁷

The consequences of such HGT for human and animal health and the environment are not

predictable, but are potentially serious. The health and environmental risk assessment for any GM variety must demonstrate that the GM plants have been completely cleared of GM *A. tumefaciens* before they are approved for commercialisation.

5.12.4. Gene transfer by viruses

Viruses are efficient at transferring genes from one organism to another and in effect are able to carry out HGT. Scientists have made use of this capacity to create viral gene transfer vectors that are frequently used in research to introduce GM genes into other organisms. Such vectors based on plant viruses have also been developed to generate GM crops, though no crops produced with this approach have been commercialised to date.^{182,183}

The viral vectors that are used to generate GM crops are designed to prevent the uncontrolled transfer of genetic material. However, because the long time period during which virally engineered crops would be propagated in the environment, and the large number of humans and livestock that would be exposed to this GM genetic material, there is a real, though small, risk that unintended modifications could occur that could lead to virus-mediated HGT – with unpredictable effects.

Another potential risk of virus-mediated HGT comes from GM crops engineered to contain a virus gene, in particular those carrying information for a viral “coat” protein. This is done in an attempt to confer resistance of the crop from actual infection and damage by the family of ‘wild’ virus from which the viral GM gene was derived. However, it has been suggested that if a GM crop containing a viral gene of this type was infected by the viruses, it may result in exchange of genetic material between the GM viral gene in the plant and the infecting virus, through a process known as recombination. This can potentially result in a new more potent (“virulent”) strain of virus.^{184,185}

The reasons for these concerns are as follows. The GM viral gene will be present in every single cell of the crop. As a result, the large-scale cultivation of such a viral GM gene-containing crop will result in an extremely high concentration of particular viral genes in fields. It has been suggested that this provides an unprecedented opportunity for genetic material recombination

events to take place between an infecting virus and GM viral genes in the crop, thereby increasing the risk of new, mutated, and potentially more virulent strains of virus being produced.¹⁸⁵

Such viral mutation with increased virulence has been shown to occur under laboratory conditions.^{186,187}

To date only two GM crops engineered with genes from viruses have been commercialised: a variety of squash grown in the USA and Mexico,¹⁸⁸ and papaya cultivated in Hawaii.¹⁹⁰ There are no reports of any investigations to see if any new viral strains have arisen by recombination in these two crops. Interestingly, and quite unexpectedly, although the GM squash was resistant to viral infection, it was found to be prone to bacterial wilt disease following attack by beetles.¹⁹¹

Conclusion to Section 5

Most of the benefits for farmers and the environment claimed for GM crops are either exaggerated or false. For example, contrary to frequent claims, GM crops have not increased intrinsic yield. Crop yields have increased over the past decades, but this is due to successes in conventional breeding, not GM traits.

Neither have GM crops decreased pesticide use. The adoption of GM Bt maize and cotton has resulted in a slight decrease in the volume of insecticide sprays, but this decrease is likely to be unsustainable as pests gain resistance to the Bt toxins and secondary pests take over. Also, the reduction in insecticidal sprays is dwarfed by the massive increase in herbicide use caused by the adoption of GM herbicide-tolerant crops. The adoption of these GM crops has caused farmers to spray 383 million more pounds (174 million kg) of herbicides than they would have done in the absence of GM herbicide-tolerant seeds.

This increase is largely due to the spread of weeds resistant to glyphosate, the herbicide most commonly used on GM crops. As a "solution" to the problem of glyphosate-resistant weeds, biotech companies have developed crops engineered to tolerate several different herbicides, including

5.12.5. Overall assessment of the risks of HGT by the above methods

HGT events of all types are of very low probability of occurrence. The method with the highest probability of occurring is DNA uptake by bacteria in either the environment or the digestive tract. There is good evidence that this has already happened in the intestinal bacteria of humans who consume GM soy.

The other scenarios are of significantly lower probability. However, given the extremely wide distribution of GM crops and their intended use over decades, these low probabilities translate into the likelihood that HGT events could actually occur even via the mechanisms that are expected to take place at lower probabilities.

Therefore, the negative impacts and risks associated with HGT must be taken into account in considering the overall biosafety of any GM crop.

potentially even more toxic herbicides such as dicamba and 2,4-D (an extremely toxic ingredient of Agent Orange). The resulting chemical treadmill only benefits the GM seed companies, which profit from each failure of their technologies because the failure creates a new opportunity for them to sell more chemicals in increasingly complex mixtures. Claims for the environmental friendliness of the no-till farming system as practised with GM herbicide-tolerant crops are also unjustified.

Glyphosate over-use is also causing other problems for farmers, such as reducing crop vigour by making soil nutrients unavailable to crops and causing or exacerbating plant diseases that impact yield. Manufacturer claims that glyphosate/Roundup is an environmentally benign herbicide with low toxicity have proved to be false, with a growing number of studies showing that it persists in the environment and has toxic effects, in addition to studies showing that it is toxic to humans and causes birth defects and cancer.

Claims of reductions in insecticide use through Bt crops are suspect when it is considered that the entire GM plant is an insecticide. Also, Bt crop technology is being undermined by the

emergence of resistant and secondary pests, which force farmers to go back to spraying complex and expensive chemical cocktails. And the increased use of insecticidal seed treatments on GM and non-GM seed alike raises the possibility that insecticide use has not been reduced through Bt crops but that it is simply less visible to farmers and consumers.

Statements that the Bt toxin in Bt crops only affects insect pests have been shown to be false by studies showing negative effects on a wide range of organisms, including beneficial insects that help protect crops and beneficial soil organisms that enhance crop growth and health.

Economic impacts of GM crops on farmers appear to be variable. Reports have emerged of escalating prices for GM seeds and the chemicals they are engineered to depend on. This pattern is enabled by the consolidation of the seed market under the control of the GM and agrochemical industry and the absence of real competition.

At odds with claims that GM crops increase farmer choice, in reality their introduction marks the disappearance of farmer choice due to two mechanisms. First, as the GM industry gains control over the seed market in a region, desirable non-GM seed varieties are pulled from the market. Second, the biotech industry lobbies for “freedom of choice” for farmers, claiming that GM and non-GM crops (including organic) can “co-exist”. This opens the door for GM crops, causing farmers who wish to grow non-GM or organic crops to lose their freedom of choice due to GM contamination. Time and again, this has resulted in lost markets and increased costs to farmers and the food and feed industry.

GM traits can spread to other crops, wild plants, and other unrelated species by horizontal gene transfer (HGT) through several mechanisms, some of which are more likely than others. The potential consequences of HGT have not been adequately considered by regulators.

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6. CLIMATE CHANGE AND ENERGY USE

climate change is often used as a reason to claim that we need GM crops.¹ But the evidence suggests that the solutions to climate change do not lie in GM. This is because tolerance to extreme weather conditions such as drought and flooding – and resistance to the pests and diseases that often accompany them – are complex traits that cannot be delivered through GM.

Where a GM crop is claimed to possess such complex traits, they have generally been achieved through conventional breeding, not GM. Simple GM traits such as pest resistance or herbicide tolerance are added to the conventionally bred crop so as to put the biotech company's "brand" on it after the complex trait is developed through conventional breeding.

While the resulting crop is often claimed as a GM success, this is untrue. It is a success of conventional breeding, with added GM traits. The GM traits do not contribute to the agronomic performance of the crop but make the crop the property of a biotech company and (in the case of herbicide tolerance) keep farmers dependent on chemical inputs sold by the same company.

Section at a glance

- ▶ GM will not solve the problems of climate change. Tolerance to extreme weather conditions involves complex, subtly regulated traits that genetic engineering is incapable of conferring on plants.
- ▶ Most GM crops depend on large amounts of herbicides, which in turn require large amounts of fossil fuels in manufacture.
- ▶ No GM nitrogen-use-efficient crops have been successfully commercialised even though promoters of the technology have been promising them for more than a decade.
- ▶ Conventional breeding is far ahead of GM in developing climate-ready and nitrogen-use-efficient crops.
- ▶ Additional means to cope with climate change include the many locally-adapted seeds conserved by farmers across the world and agroecological soil, water, and nitrogen management systems.

6.1 **Myth:** GM will deliver climate-ready crops

Truth: Conventional breeding outstrips GM in delivering climate-ready crops

In December 2011 the US Department of Agriculture (USDA) deregulated Monsanto's drought-tolerant maize variety MON87460.² It was hailed as the first commercialised GM crop designed to resist stressful environmental conditions like drought. But the USDA, in its assessment of the crop, noted that many non-GM maize varieties on the market are at least as effective as Monsanto's engineered maize variety in managing water use. "The reduced yield [trait] does not exceed the natural variation observed in regionally-adapted varieties of conventional corn," USDA said, adding, "Equally comparable varieties produced through conventional breeding techniques are readily available in irrigated corn production regions."³

This is to be expected, given that GM crops are developed by adding GM traits to the best existing conventionally bred varieties.

Meanwhile, conventional breeding, sometimes helped by marker assisted selection, has outstripped GM in producing numerous climate-ready crops. Examples include:

- Maize varieties that yield well in drought conditions,⁴ including some developed for farmers in Africa^{5,6,7}
- Cassava that gives high yields in drought conditions and resists several diseases⁸
- Climate-adapted, high-yield sorghum varieties developed for farmers in Mali⁹
- Beans resistant to heat, drought, and disease^{10,11}
- Pearl millet, sorghum, chickpea, pigeon pea and groundnut varieties that tolerate drought and high temperatures¹²
- Rice varieties bred to tolerate drought, flood, disease, and saline (salty) soils¹³
- Flood-tolerant rice varieties developed for Asia^{14,15}
- Over 2,000 indigenous rice varieties that are adapted to environmental fluctuations, as well as varieties that resist pests and diseases, registered by Navdanya, a seed-keeping NGO based in India¹⁶

- Tomato varieties developed by Nepali farmers that tolerate extreme heat and resist disease.¹⁷
- It should be borne in mind that only a part of the solution to climate change lies in plant genetics. Insofar as genetics is the solution, humanity will continue to rely on the same source that GM seed companies mine for their germplasm – the hundreds of thousands of locally adapted seed varieties developed and conserved over centuries by farmers worldwide. These varieties are our living germplasm bank.

The part of the solution that lies beyond plant genetics will be found in proven effective agroecological farm management techniques, such as building organic matter into the soil to conserve water, planting a diversity of crops, rotating crops, and choosing the right plant for the conditions.

6.2 **Myth:** No-till farming as practised with GM crops is climate-friendly as it sequesters more carbon

Truth: No-till farming does not sequester more carbon

Chemically-based agriculture is a major contributor to climate change, producing over 20% of greenhouse gas emissions.¹⁸ GM proponents claim that GM crops can help reverse this trend by enabling the adoption of no-till farming, which avoids ploughing and relies on herbicide applications to control weeds. GM proponents argue that no-till sequesters (stores) more carbon in the soil than ploughing, preventing the carbon from being released into the atmosphere as the greenhouse gas carbon dioxide.

On the basis of this argument, Monsanto is lobbying for GM Roundup Ready crop cultivation to be made eligible for carbon credits under the United Nations' Clean Development Mechanism (CDM).¹⁹ The CDM aims to promote technologies that mitigate climate change. Industrialized countries and companies in the Global North can continue to emit the same amount of greenhouse gases and still meet their required emissions

reductions by funding CDM projects, most of which are in the Global South.

If Monsanto succeeds in its lobbying and farmers that grow Roundup Ready crops can access carbon credits for no-till, then sales of Monsanto's seeds and agrochemicals will increase, as governments will encourage farmers to plant Roundup Ready crops to qualify for carbon credits.

But industry claims of improved carbon sequestration for GM Roundup Ready crops with no-till are not supported by research. A comprehensive review of the scientific literature found that no-till fields sequester no more carbon than ploughed fields when carbon sequestration at soil depths greater than 30 cm is taken into account. Studies claiming to find carbon sequestration benefits from no-till only measure carbon sequestration down to a depth of about 30cm and so do not give an accurate picture.²⁰

6.3 Myth: GM will solve the nitrogen crisis

Truth: GM has not delivered nitrogen-efficient crops

Synthetic nitrogen fertilizer is used in GM farming, as in all chemically-based agriculture. There are many problems associated with its production and use. The production process uses large amounts of natural gas, a non-renewable fossil fuel.²¹ A UK study found that nitrogen fertilizer production can account for more than 50% of the total energy used in agriculture.²²

Nitrogen fertilizer produces greenhouse gases at the time of manufacture and again when used on fields,²² giving off nitrous oxide, a greenhouse gas 300 times more potent than carbon dioxide.²³ Fertilizer-intensive agriculture is the largest source of human-created nitrous oxide emissions in the US²⁴ and will be a major source in any country using chemically-based agriculture.

The profitability of farming is highly dependent on the cost of fertilizers, and the cost of nitrogen fertilizer is tied to natural gas prices.²¹ In Canada, a major producer, the price of nitrogen fertilizer reached a record high in 2008.²⁵ According to some analysts, peak gas, the point at which the maximum rate of gas extraction is reached and supplies enter terminal decline is expected to arrive around 2020.²⁶ As this point gets closer, prices will rise. Already the industry is ramping up expensive and environmentally damaging strategies, like fracking, for natural gas extraction.

For these reasons, agriculture cannot continue to depend on synthetic nitrogen fertilizer. Other ways of managing nitrogen must be found.

Some plants, including most legumes (the bean family of plants, which includes soy and peanuts), fix nitrogen directly from the air with the help of nitrogen-fixing bacteria. But other crops, such as wheat and barley, cannot do this and need to be fed nitrogen through the soil.

Proponents claim that genetic engineering can produce crops with high nitrogen use efficiency (NUE) that require less nitrogen fertilizer.

But GM technology has not produced any commercially available NUE crops.²⁷ On the other hand, conventional breeding has successfully delivered improvements in NUE in a number of

crops. Estimates for wheat from France show an increase in NUE of 29% over 35 years, and Mexico has improved wheat NUE by 42% over 35 years.²⁷

Studies show that organic, low-input and sustainable farming methods are the key to nitrogen management. One study calculated the potential nitrogen production by such methods to be 154 million tonnes, a potential which far exceeds the nitrogen production from fossil fuel.²⁸

Sustainable nitrogen management methods include the planting of legumes in rows between the main crop, or in a crop rotation. This makes growth-promoting nitrogen available to other plants growing nearby at the same time or planted in subsequent cropping seasons.

Study findings include:

- Planting legumes on degraded land in Brazil successfully fixed nitrogen in soil, restoring soil and ecosystem biodiversity in the process.²⁹
- Maize/peanut intercropping (growing two or more crops in close proximity) increased soil nitrogen and nutrients, increased growth of beneficial soil bacteria, and was expected to promote plant growth, as compared with monoculture, in experiments in China.³⁰
- Planting legume cover crops (crops planted to preserve soil) could fix enough nitrogen to replace the amount of synthetic fertilizer currently in use, according to data from temperate and tropical agroecosystems.²⁸

Agroecological methods of managing nitrogen solve another major problem associated with the application of synthetic nitrogen fertilizer – loss of soil nitrogen through agricultural runoff. In the runoff process, nitrogen leaches from soil in the form of nitrate, polluting groundwater. It can get into drinking water, threatening human and livestock health.

Agroecological, organic, low-input, and sustainable farming practices have been found to reduce soil nitrogen losses in the form of nitrate by 59–62% compared with conventional farming practices.³¹ The result is reduced nitrate pollution and better conservation of nitrogen in soil.

6.4 Myth: GM crops reduce energy use Truth: GM crops are energy-hungry

"We have tried to have more efficient farming, with fewer people, more machines and a greater dependency on pesticides, fertilizers, GM crops and energy, using 10 kilocalories to produce one kilocalorie [of food delivered to the consumer]. But that is only possible if there is cheap oil. The system basically is bankrupt, which is why we need to change it to a more modern, advanced system, which will create energy, rather than consume it, and is not dependent on fossil energy, but more on people and better science."

– Hans Herren, development expert and co-chair, International Assessment of Agricultural Knowledge, Science and Technology, (IAASTD), a three-year project on the future of farming involving more than 400 experts from across the world³²

In the US food system, 10 kilocalories of fossil energy are required for every one kilocalorie of food delivered to the consumer.³³ Two-thirds of that energy goes into producing synthetic fertilizers and on-farm mechanisation.³⁴

There is widespread agreement that the energy consumption of agriculture must be radically reduced. GM proponents claim that GM crops can help in that process. As evidence they cite a report by Graham Brookes and Peter Barfoot, directors of PG Economics, a consultancy firm to the agrochemical and biotech industry.^{35,36}

Brookes and Barfoot offer as a major reason for this claimed reduction in energy use the no-till farming method that is used in the cultivation of GM Roundup Ready crops. The idea is that no-till reduces the number of tractor passes that farmers have to make across their fields in ploughing.

But data from Argentina comparing the energy used in growing GM Roundup Ready soy and non-GM soy showed that, while no-till did reduce farm operations (tractor passes across the field), the production of GM soy required more energy in both no-till and tillage systems. The reason for the increase was the large amount of energy consumed

in the production of herbicides (mostly Roundup) used on GM soy.³⁷

Proven methods of reducing the amount of fossil energy used in farming include minimising the use of synthetic pesticides and fertilizers, selecting farm machinery appropriate for each task, limiting irrigation, and using agroecological techniques to manage soil fertility and control pests.³³

Organic farming systems use just 63% of the energy required by chemically-based farming systems, largely because they eliminate the energy required to produce nitrogen fertilizer and pesticides.³⁸

Organic, low-input, and agroecological farming is well suited to the Global South. A study in Ethiopia, part-funded by the UN Food and Agriculture Organisation (FAO), showed that compost can replace chemical fertilizers and that it increased yields by more than 30%. The crops had better resistance to pests and disease and there were fewer difficult weeds.³⁹

6.4.1. Peak oil and gas make GM crops redundant

According to some analysts, peak oil – the point when the maximum rate of extraction is reached, after which production goes into terminal decline – has already arrived. Peak gas is expected around 2020.²⁶ Peak oil and gas mark the end of chemically-based agriculture because nitrogen fertilizers are synthesised using large amounts of natural gas, and pesticides (including herbicides) are made from oil.

GM firms constantly promise new crops that are not reliant on the chemical model of farming. But GM seeds are created by agrochemical companies and are heavily dependent on pesticides and fertilizers. According to industry data, two-thirds of GM crops worldwide are herbicide-tolerant⁴⁰ – in other words, they are designed to rely on high doses of herbicide. Many of the newest GM crops are engineered to tolerate several different herbicides (see section 5).

Agriculture cannot continue to depend on non-renewable and increasingly expensive external inputs. Future food production will reduce or

eliminate pesticide use and rely on renewable biologically-based fertilizers – such as compost and animal manure – produced on the farm or locally.

Conclusion to Section 6

GM crops offer no effective or sustainable solutions to climate change. Tolerance to extreme weather conditions is a complex trait that cannot be inserted into plants through genetic engineering. Most GM crops planted worldwide depend on large amounts of herbicides, which in turn require large amounts of fossil fuels in manufacture. GM crops, like all chemically-farmed crops, also depend on energy-hungry and greenhouse-gas-emitting nitrogen fertilizer. No

GM nitrogen-use-efficient crops are available on the market.

In contrast, conventional breeding, sometimes helped by marker assisted breeding, is far ahead of GM in developing climate-ready and nitrogen-use-efficient crops. Additional means to cope with climate change include the many locally-adapted seeds conserved by farmers across the world and agroecological soil, water, and nitrogen management systems.

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7. FEEDING THE WORLD

7.1 **Myth:** GM crops are needed to feed the world's growing population

Truth: GM crops are irrelevant to feeding the world

"We strongly object that the image of the poor and hungry from our countries is being used by giant multinational corporations to push a technology that is neither safe, environmentally friendly nor economically beneficial to us. We do not believe that such companies or gene technologies will help our farmers to produce the food that is needed in the 21st century. On the contrary, we think it will destroy the diversity, the local knowledge and the sustainable agricultural systems that our farmers have developed for millennia, and that it will thus undermine our capacity to feed ourselves."

– Statement signed by 24 delegates from 18 African countries to the United Nations Food and Agricultural Organization, 1998

"If anyone tells you that GM is going to feed the world, tell them that it is not... To feed the world takes political and financial will."

– Steve Smith, head of GM company Novartis Seeds UK (now Syngenta), public meeting on proposed local GM farm scale trial, Tittleshall, Norfolk, UK, 29 March 2000

GM crops are promoted as a way of solving world hunger at a time when the population is expected to increase. But it is difficult to see how GM can contribute to solving world hunger when there are no GM crops available that increase intrinsic yield (see Section 5). Nor are there any GM crops that are better than non-GM crops at tolerating poor soils or challenging climate conditions.

Instead, most currently available GM crops are

Section at a glance

- ▶ GM crops are promoted as necessary to feed the world's growing population. But it seems unlikely that they could make a significant contribution as they do not deliver higher yields or produce more with less inputs than non-GM crops.
- ▶ Most GM crops are engineered to tolerate herbicides or to express a pesticide – properties that are irrelevant to solving hunger.
- ▶ Hunger is not caused by a lack of food in the world. It is a problem of distribution and poverty, which GM cannot solve.
- ▶ The IAASTD report, authored by over 400 international experts, concluded that the key to food security lay in agroecological farming methods. The report did not endorse GM, noting that yields were "variable" and that better solutions were available.
- ▶ Agroecological farming has resulted in significant yield and income benefits to farmers in the Global South, while preserving soil for future generations.
- ▶ GM is not needed to feed the world. Conventional plant breeding has already delivered crops that are high-yielding, disease- and pest-resistant, tolerant of drought and other climatic extremes, and nutritionally enhanced – at a fraction of the cost of GM.

engineered for herbicide tolerance or to contain a pesticide, or both. The two major GM crops, soy and maize, mostly go into animal feed, biofuels to power cars, and processed human food – products for developed nations that have nothing to do with meeting the basic food needs of the poor and hungry. GM corporations are answerable to their shareholders and thus are interested in profitable commodity markets, not in feeding the poor and hungry.

Even if a GM crop did appear that gave higher yields than non-GM crops, this would not impact

the problem of hunger. This is because the root cause of hunger is not a lack of food, but a lack of access to food. According to the UN Food and Agriculture Organisation, we already produce more than enough food to feed the world's population and could produce enough with existing agricultural methods to feed 12 billion people.¹ The problem is that the poor have no money to buy food and increasingly, no access to land on which to grow it. Hunger is a social, political, and economic problem, which GM technology cannot address. GM is a dangerous distraction from real solutions and claims that GM can help feed the world can be viewed as exploitation of the suffering of the hungry.

7.1.2. GM crops for Africa: Catalogue of failure

A handful of GM crops have been promoted as helping small-scale and poor farmers in Africa. However, the results were the opposite of what was promised.

GM sweet potato yielded poorly, lost virus resistance

The virus-resistant sweet potato has been a GM showcase project for Africa, generating global media coverage. Florence Wambugu, the Monsanto-trained scientist fronting the project, has been proclaimed an African heroine and the saviour of millions, based on her claims that the GM sweet potato doubled output in Kenya. Forbes magazine even declared her one of a tiny handful of people around the globe who would "reinvent the future".²

But it eventually emerged that the claims being made for the GM sweet potato were untrue, with field trial results showing it to be a failure. The GM sweet potato was out-yielded by the non-GM control and succumbed to the virus it was designed to resist.^{3,4}

In contrast, a conventional breeding programme in Uganda produced a new high-yielding variety that was virus-resistant and raised yields by roughly 100%. The Ugandan project achieved its goal in a fraction of the time and cost of the GM project. The GM sweet potato project, over 12 years, consumed funding from Monsanto,

the World Bank, and USAID to the tune of \$6 million.⁵

GM cassava lost virus resistance

The potential of genetic engineering to boost the production of cassava – one of Africa's staple foods – by defeating a devastating virus has been heavily promoted since the mid-1990s. It was even claimed that GM cassava could solve hunger in Africa by increasing yields as much as tenfold.⁶

But almost nothing appears to have been achieved. Even after it became clear that the GM cassava had suffered a major technical failure, losing resistance to the virus,⁷ media stories continued to appear about its curing hunger in Africa.^{8,9}

Meanwhile, conventional (non-GM) plant breeding has quietly produced a virus resistant cassava that is already proving successful in farmers' field, even under drought conditions.¹⁰

Bt cotton failed in Makhatini

"The [GM cotton] seed itself is doing poorly. Without irrigation, and with increasingly unpredictable rain, it has been impossible to plant the cotton. In 2005 T. J. Buthelezi, the man whose progress was hymned by Monsanto's vice-president not three years before, had this to say: 'My head is full – I don't know what I'm going to do. I haven't planted a single seed this season. I have paid Rand 6,000 (USD 820, GBP 420) for ploughing, and I'm now in deep debt.' T. J. is one of the faces trucked around the world by Monsanto to prove that African farmers are benefiting from GM technology."

– Raj Patel, "Making up Makhatini", in *Stuffed and Starved*¹¹

Makhatini in South Africa was home to a showcase GM Bt cotton project for small-scale farmers. The project began with 3000 smallholder farmers cultivating Monsanto's Bt cotton between 1998 and 2001,¹² with over 100,000 hectares planted. By 2002, the area planted had crashed to 22,500 hectares, an 80% reduction in four years.^{13,11}

A 2003 report on the project calculated that crop failures left the farmers who had adopted the expensive Bt cotton with debts of \$1.2 million.⁵ A separate study concluded that the project did not generate sufficient income to generate a “tangible and sustainable socioeconomic improvement”.¹⁴

By 2004, 85% of farmers who used to grow Bt cotton had given up. The farmers found pest problems and no increase in yield. Those farmers who still grew the crop did so at a loss. They continued only because the South African government subsidised the project from public funds; the company that sold the cottonseed and bought the cotton was their only source of credit; and there was a guaranteed market for the cotton.^{13,11}

A 2012 review reported that by the 2010/11 growing season, the area planted to Bt cotton had shrunk to a minuscule 500 hectares – a decline of more than 90% from the area under cultivation during the period of Bt cotton’s claimed success (1998–2000). Yields continued to vary widely according to rainfall levels, hovering within 10% of

“To feed 9 billion people in 2050, we urgently need to adopt the most efficient farming techniques available. Today’s scientific evidence demonstrates that agroecological methods outperform the use of chemical fertilizers in boosting food production where the hungry live – especially in unfavorable environments.

“To date, agroecological projects have shown an average crop yield increase of 80% in 57 developing countries, with an average increase of 116% for all African projects. Recent projects conducted in 20 African countries demonstrated a doubling of crop yields over a period of 3–10 years.

“Conventional farming relies on expensive inputs, fuels climate change and is not resilient to climatic shocks. It simply is not the best choice anymore today.

“Agriculture should be fundamentally redirected towards modes of production that are more environmentally sustainable and socially just.”

– Olivier De Schutter, UN special rapporteur on the right to food and author of the report, “Agroecology and the right to food”^{32,33}

what they were before Bt cotton was introduced. Overall pest control costs remained significantly higher with Bt cotton (65% of total input costs) than with non-Bt cotton (42% of total input costs).

The review concluded that the main value of Makhatini project appears to have been as a public relations exercise for GM proponents, providing “crucial ammunition to help convince other African nations to adopt GM crops” and that there was a “disconnect” between how the project was represented and “the realities faced by its cotton growers”.¹²

GM soy and maize project ends in ruin for poor farmers

A GM soy and maize farming project ended in disaster for poor black farmers in South Africa. The Eastern Cape government was criticised for its support of this so-called “Green Revolution” project, which was launched in 2003–2004. A research study by the Masifunde Education and Development Project Trust, together with Rhodes University, found that the programme had disastrous results for farmers.

“We saw a deepening of poverty and people returning to the land for survival,” said Masifunde researcher, Mercia Andrews. The study raised concerns about feeding schemes conducted on animals with “alarming results”, including damage to internal organs. It presented evidence of weed and pest problems, contamination of crops with GM pollen, and the control exercised by big companies over local and global food systems as a result of patented seeds.¹⁵

We conclude from these examples that it is irresponsible to pressure poor farmers in the Global South into gambling their farms and livelihoods on risky GM crops when proven effective alternatives exist.

7.1.3. The biofuels boom and the food crisis

“The agribusiness giants who have developed and patented genetically modified crops have long argued that their mission is to feed the world, rarely

missing an opportunity to mention starving Africans. Their mission is, in fact, to make a profit.

"Land rights for small farmers, political stability, fairer markets, education and investment hold the key to feeding Africa but offer little prospect of increased profits.

"The climate crisis was used to boost biofuels, helping to create the food crisis; and now the food crisis is being used to revive the fortunes of the GM industry."

– Daniel Howden, Africa correspondent, The Independent (UK)¹⁶

"The cynic in me thinks that they're just using the current food crisis and the fuel crisis as a springboard to push GM crops back on to the public agenda. I understand why they're doing it, but the danger is that if they're making these claims about GM crops solving the problem of drought or feeding the world, that's bullshit."

– Denis Murphy, head of biotechnology, University of Glamorgan, Wales¹⁷

The 2007–2008 global food crisis led to food riots around the world, as the escalating price of staple crops pushed food out of reach of the poor and hungry. The crisis is ongoing – in early 2011 global food prices remained close to their 2008 peak.¹⁸ They declined 8% between September and December 2011, though the World Bank reported that they were still high, with the 2011 annual food price index exceeding the 2010 annual index by 24%.¹⁸

GM proponents have used the food crisis to claim that anti-GM activists in the Global North are keeping the Global South hungry by creating unfounded fears about GM crops. These high-technology GM crops, they claimed, could help solve the hunger problem, if only the activists in affluent countries would stop interfering. But the World Bank and the United Nations Food and Agriculture Organisation identified the biofuels boom – not a lack of GM foods – as the main cause of the 2007–2008 food crisis.^{19,20}

Biofuels are crops used for fuel. Vast tracts of

cropland have been taken out of food production to grow biofuels for cars, funded by generous government subsidies. This has made food scarcer, pushing up costs.

An added factor is that the growth of the biofuels industry has created a link between agriculture and fuel that never existed before.

"A key question for our scientists, and politicians to address, and to have the courage to demand that industry addresses it too, is whether GM technology can and will co-exist in the global agricultural toolbox with other technologies, without destroying those other tools. Apart from more promise than delivery, and delivery of only private benefits like greater market share for their own chemical pesticides, GM has brought with it a marked narrowing of seed varieties available to farmers, a concentration of ownership of seed production and sales, and a concentration in ownership and control of the knowledge (intellectual property rights or IPRs) required for agricultural production.

"In 2002, the director of the Vietnamese government agricultural research centre told me at a conference in Asia that he could spend all of his annual R&D budget (US\$20m, as I recall) just on lawyers, trying to sort out what materials his researchers could and could not use, and on licence fees for such IPRs, according to the intellectual property rights jungle which has grown on plant and crop materials and molecules. Is this kind of commercial restriction, and narrowing of diversity of agricultural innovation trajectories, helping such food-poor countries to gain food security?"

"This concentration and narrowing, and the associated transformation of agriculture into industrialised monocrop production requiring more expensive and unsustainable inputs, which in turn ignores and externalises entirely predictable pest and weed resistance and thus short-term yield drops, cannot be a sustainable technology. Nor does it seem that it could co-exist with other technologies in the so-called toolbox."

– Professor Brian Wynne, ESRC Centre for Economic and Social Aspects of Genomics, Cesagen Lancaster University, UK⁴³

Previously, agricultural markets were driven only by food demands and were not linked to petroleum markets. But now they are tightly linked, because agriculture provides the crops that are used to make the biofuels alternative to petrochemical fuels. Four major food and feed crops – sugarcane, maize, wheat, and soy – are now used for biofuels feedstock. So the biofuels boom has coupled food prices to fossil fuel prices,¹⁸ with the result that food prices will continue to spiral as petroleum becomes scarcer and more expensive.

The same companies that produce GM seeds also produce feedstocks for biofuels. This shows that these companies are not motivated by a desire to feed the world but by a desire to make a profit.

7.1.4 Food speculation and hunger

An additional cause of the 2007–2008 food crisis (apart from the rush to biofuels) was financial speculation in food commodity markets. This ongoing trend drives up prices for the crops that are traded internationally on a large scale, namely maize, wheat, and soy. One report on the topic concluded, “Food markets should serve the interests of people and not those of financial investors... Given that hunger still exists in the world, even small price increases that are driven by financial investment are scandalous. We must not allow food to become a purely financial asset.”²¹

GM crops do not provide a solution to the problem of financial speculation in food markets.

7.2 Myth: GM crops are vital to achieve food security

Truth: Agroecological farming is the key to food security

“Agroecology mimics nature not industrial processes. It replaces the external inputs like fertilizer with knowledge of how a combination of plants, trees and animals can enhance productivity of the land. Yields went up 214% in 44 projects in 20 countries in sub-Saharan Africa using agroecological farming techniques over a period of 3 to 10 years... far more than any GM crop has ever done.”

– Olivier De Schutter, UN special rapporteur on the right to food²²

In 2008 the World Bank and four United Nations agencies completed a four-year study on the future of farming. Conducted by over 400 scientists and experts from 80 countries and endorsed by 62 governments, the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) report did not endorse GM crops as a solution to world hunger. The report pointed out that yields of GM crops were “highly variable”, providing “yield gains in some places and yield declines in others”.²³

The IAASTD identified agroecological farming as the key to future food security. The report called for more cooperation between farmers and interdisciplinary teams of scientists to build culturally acceptable and sustainable food production systems.²³ Examples of such systems documented in IAASTD and other sources include:

- Low-input, energy-saving practices that preserve and build soil, conserve water, and enhance natural pest resistance and resilience in crops
- Innovative farming methods that minimize or eliminate costly chemical pesticides and fertilizers
- Use of thousands of traditional varieties of major food crops which are naturally adapted to stresses such as drought, heat, harsh weather conditions, flooding, salinity, poor soil, and pests and diseases²⁴
- Programmes that enable farmers to

cooperatively preserve and improve traditional seeds

- Use of existing crops and their wild relatives in traditional breeding programmes to develop varieties with useful traits
- Use of safe techniques of modern biotechnology, such as marker assisted selection (MAS), to speed up traditional breeding. Unlike GM technology, MAS can produce new varieties of crops with valuable genetically complex properties such as enhanced nutrition, taste, high yield, resistance to pests and diseases, and tolerance to drought, heat, salinity, and flooding.²⁵

Sustainable agriculture projects in the Global South have produced dramatic increases in yields and food security.^{26,27,28,29,30,31} A 2008 United Nations report looked at 114 farming projects in 24 African countries and found that organic or near-organic practices resulted in yield increases averaging over 100%. In East Africa, a yield increase of 128% was found. The report concluded that organic agriculture can be more conducive to food security in Africa than chemically-based production systems, and that it is more likely to be sustainable in the long term.²⁹

These results serve as a reminder that plant genetics are only a part of the answer to food security. The other part is how crops are grown. Sustainable farming methods that preserve soil and water and minimize external inputs not only ensure that there is enough food for the current population, but that the land stays productive for future generations.

7.2.1. Small farms are more efficient

Research confirms that future food security lies in the hands of small farmers. Small farms are more efficient than large ones, producing more crops per hectare of land.^{34,35,36,37}

7.2.2. Sustainable agriculture can reduce poverty

Studies based in Asia, Africa, Latin America

and the Caribbean have found that organic and agroecological farming can combat poverty in an environmentally sustainable way:

- Farmers growing organic crops for export and domestic markets in Latin America and the Caribbean had higher incomes than a control group of farmers using chemically-based methods. Reasons included the lower cost of organic technologies; the substitution of labour and organic inputs for more expensive chemical inputs that often require access to credit; premiums paid for organic products; and the strong long-term relationships that organic farmers developed with buyers, which resulted in better prices. As a bonus, organic production was associated with positive effects on the health of farm workers. Concern about pesticide poisoning was an important factor in farmers' adoption of organic farming.³⁸
- The income of farmers in China and India improved after they switched to organic systems and was greater than that of farmers using chemically-based methods. The study concluded that the promotion of organic agriculture among small farmers can contribute to poverty alleviation.³⁹
- Certified organic farms in tropical Africa involved in production for export were more profitable than those involved in chemically-based export production. The result was decreased poverty and increased food security for farming communities, as people had more money to buy food. Also, organic conversion brought increases in yield.⁴⁰
- Organic systems in Africa were found to raise farm incomes as well as agricultural productivity. Reasons for the higher incomes included lower input costs, as expensive synthetic pesticides and fertilizers were not used; and use of local, inexpensive, and readily available technologies.²⁹
- The agroecological "integrated rice-duck" system of using ducks and fish to control pests in rice paddies in Japan, China, India, the Philippines, and Bangladesh has cut labour costs for weeding, reduced pesticide costs, increased yields by up to 20%, and boosted farm incomes by up to 80%.^{41,42}

7.2.3. Who owns food?

Traditionally, most food crop seeds have not been owned by anyone. Farmers have been free to save seeds from one year's crop for the next year's crop. Around 1.4 billion farmers in the Global South rely on such farm-saved seed for their livelihoods.⁴⁴

But this ancient practice is being undermined. The transgenes used in creating GM crops are patented and owned by GM companies. The patents forbid farmers from saving seed to plant the following year. They have to buy new seed each year.

While an increasing number of non-GM seeds are also being patented (in many cases by the big GM companies such as Monsanto, Dupont, and Syngenta), GM seeds are easier to patent as the artificial genetic constructs can be more clearly identified and there are fewer legal "grey areas".⁴⁵ So for the time being, at least, GM will remain the technology of choice for the seed multinationals.

In the United States and Canada, the presence of a company's patented GM genes in a farmer's harvest has been used by GM companies, particularly Monsanto, as the basis for litigation against the farmer. Contamination from cross-pollination happens readily, so the harvests of many farmers who have not planted Monsanto seed have tested positive for GM genes and Monsanto has sued them for patent infringement. This has pushed many farmers into switching to buying Monsanto's seed, because then they are safer from litigation. Farmers' claims that they have not intentionally planted GM crops have not protected them from having to pay large cash settlements or damages as a result of civil lawsuits.⁴⁶

Patented GM seeds transfer control of food production from farmers to seed companies. GM companies co-opt centuries of farmer knowledge that went into creating locally adapted and genetically diverse seed stocks by adding one GM gene on top of the collective creation of generations of farmers.

Patents also transfer control of the food supply from the Global South to developed countries in the Global North. This is because most of the world's genetic resources for food crops are in the South, whereas most patents are held in

the North.⁴⁷ There is widespread concern in the Global South about the “biopiracy” of its genetic resources by the Global North, involving seed patenting and the loss of farmers’ rights to save seed.

Some GM proponents have called for GM crops to be developed through public funds for the benefit of humanity.⁴⁸ But it is difficult to justify gambling taxpayer funds on speculative GM “solutions” to problems that can be solved using methods that are simpler, cheaper, and available now. Nor would any public or private entity have an incentive to fund the lengthy and expensive process of GM crop development unless they owned a patent that would enable them to recoup their expenses and make a profit.

Patents have no place in the agricultural system. To protect the security of the food supply and to ensure food sovereignty for each nation, governments must establish policies that ensure that the control of food production remains in the hands of farmers.

7.3 Myth: GM is needed to provide the crops that will enable us to survive the challenges ahead.

Truth: Non-GM breeding methods are more effective at creating crops with useful traits

“The advantage of science is not in principle, for its own self – it’s because it does something useful and valuable, that people want. If it is not supporting those particular objectives, I think we should take a much more sceptical view of it.”

– Michael Meacher, UK environment minister 2001–2003⁴⁹

When people hear about “supercrops” such as flood-tolerant rice, drought-tolerant maize, salt-tolerant wheat, pest-resistant chickpeas, low-allergen peanuts, iron-rich beans, beta-carotene-enriched cassava, and heart-healthy soybeans, many automatically think of GM.

But all these improved crops were created without GM. They are the products of conventional (natural) breeding, in some cases helped by marker assisted selection, or MAS. MAS, sometimes called precision breeding, is a largely uncontroversial branch of biotechnology that can speed up conventional breeding by identifying genes linked to important traits. MAS does not involve inserting foreign genes into the DNA of a host plant and avoids the risks and uncertainties of genetic engineering. It is widely supported by environmentalists and organic farming bodies.

Conventional breeding and MAS have succeeded where GM has failed in developing crops with useful traits such as tolerance to extreme weather conditions and poor soils, disease resistance, and enhanced nutritional value. Such traits are known as complex traits because they involve many genes working together in a precisely regulated way. Only conventional breeding methods, sometimes helped by MAS, are able to produce crops with the desired complex traits. In contrast, GM technology can only manipulate one or a few genes at a time and is unable to confer precise and integrated control of expression of GM

genes. Therefore it is incapable of producing crops with desired complex traits that rely on multiple genes working together.

Conventional breeding and MAS use the many existing varieties of crops to create a diverse, flexible, and resilient crop base. GM technology offers the opposite – a narrowing of crop diversity and an inflexible technology that requires years and millions of dollars in investment for each new trait.^{50,51}

Non-GM breeding successes usually gain minimal media coverage, in contrast with the often speculative claims of potential GM “miracles”. Thanks to the huge public relations budgets of biotechnology companies, these claims are broadcast far and wide – but have little grounding in fact.

7.3.1. The GM successes that never were

Many crops developed through conventional breeding and marker-assisted selection (MAS) are wrongly claimed as GM successes. These fall into three broad categories:

Conventionally bred crop with GM tweak

“Biotech traits by themselves are absolutely useless unless they can be put into the very best germplasm.”

– Brian Whan, spokesman for Monsanto subsidiary InterGrain⁵²

Typically, GM firms use conventional breeding, not GM, to develop crops with traits such as drought tolerance or disease resistance. They first obtain germplasm from the best varieties developed over years by farmers and breeders. Then they use conventional breeding and MAS to achieve the desired complex trait. Finally, once they have developed a successful variety using conventional breeding, they use GM to engineer

in the company's proprietary genes, so that they can patent and own the crop. This GM tweak, often a herbicide-tolerant or insecticidal gene, adds nothing to the agronomic performance of the crop.

This process was mentioned in a news broadcast about Monsanto's 2010 buy-out of part of a Western Australia cereal breeding company, InterGrain. An InterGrain spokesman explained Monsanto's interest in his company: "A really important concept is that biotech traits by themselves are absolutely useless unless they can be put into the very best germplasm."⁵²

An example of a GM product developed in this way is Monsanto's VISTIVE® soybean, which has been described as the first GM product with benefits for consumers. These low linolenic acid soybeans were designed to produce oil that would reduce unhealthy trans fats in processed food made from the oil. They were created by conventional breeding. But Monsanto turned them into a GM crop by adding a GM trait – tolerance to its Roundup herbicide.⁵³

Interestingly, Iowa State University developed some even lower linolenic acid soybean varieties than the VISTIVE and did not add any GM traits to them.⁵⁴ Very little has been heard about them, compared with VISTIVE.

Another product of this type is Syngenta's Agrisure Artesian drought-tolerant maize. The crop was developed using non-GM breeding, but herbicide tolerant and insecticidal transgenes were subsequently added through genetic engineering.⁵⁵

Conventionally bred crop without GM tweak – GM used as lab tool

In some cases, a crop is developed using GM as a lab research tool, but no GM genes are added. Nevertheless, such crops have been claimed to be GM successes. An example is flood-tolerant rice, which the UK government's former chief scientist, Sir David King, has wrongly claimed as a triumph of genetic engineering.^{56,57}

In fact, the two best-known flood-tolerant rice varieties – one of which was almost certainly the one that King referred to – are not GM at all. One variety was developed by a research team led by GM proponent Pamela Ronald.⁵⁸ Ronald's

team developed the rice through marker assisted selection (MAS).^{58,59} They used genetic engineering as a laboratory research tool to identify the desired genes, but the resulting rice is not genetically engineered.⁶⁰

However, the wording on the website of UC Davis, where Ronald's laboratory is based, misleadingly implied that her rice was genetically engineered, saying, "Her laboratory has genetically engineered rice for resistance to diseases and flooding, which are serious problems of rice crops in Asia and Africa."⁶¹

Another flood-tolerant rice created with "Snorkel" genes has also been claimed as a genetic engineering success. But the rice, which adapts to flooding by growing longer stems that prevent the crop from drowning, was bred by conventional methods and is entirely non-GM.

Laboratory-based genetic modification and modern gene mapping methods were used to study a deepwater rice variety and identify the genes responsible for its flood tolerance trait. Three gene regions were identified, including one where the two "Snorkel" genes are located. MAS was used to guide the conventional breeding process by which all three flood tolerance gene regions were successfully combined in a commercial rice variety.⁶²

Only conventional breeding and MAS could be used to generate the resulting flood-tolerant rice line. This is because it is beyond the ability of current genetic modification methods to transfer the genes and control switches for the flood-tolerance trait in a way that enables them to work properly.

Crop that has nothing to do with GM

In one high-profile case, a crop that had nothing to do with GM at all was claimed as a GM success. In a BBC radio interview, the UK government's former chief scientist, Sir David King, said that a big increase in grain yields in Africa was due to GM, when in fact it did not involve the use of GM technology.⁶³ Instead, the yield increase was due to a "push-pull" management system, an agroecological method of companion planting that aims to divert pests away from crop plants.⁶⁴ King later admitted to what he called an "honest mistake".⁶⁵

King produced this example when under pressure to provide compelling reasons why GM crops are needed. But far from showing why we need to embrace GM, it shows the exact opposite – that we need to stop being distracted by GM and put funding and support behind non-GM solutions to urgent problems.

7.3.2. Non-GM breeding successes show no need for GM

The following are just a few examples of conventionally bred crops with the types of traits that GM proponents claim can only be achieved through genetic engineering. Many are already commercially available and making a difference in farmers' fields.

Drought-tolerant and climate-ready

- Maize varieties that yield well in drought conditions,⁶⁶ including some developed for farmers in Africa^{67,68,69}
- Cassava that gives high yields in drought conditions and resists several diseases¹⁰
- Climate-adapted, high-yield sorghum varieties developed for farmers in Mali⁷⁰
- Beans resistant to heat, drought, and disease^{71,72}
- Pearl millet, sorghum, chickpea, pigeon pea and groundnut varieties that tolerate drought and high temperatures⁷³
- Rice varieties bred to tolerate drought, flood, disease, and saline (salty) soils⁷⁴
- Flood-tolerant rice varieties developed for Asia^{75,76}
- Over 2,000 indigenous rice varieties that are adapted to environmental fluctuations, as well as varieties that resist pests and diseases, registered by Navdanya, a seed-keeping NGO based in India⁷⁷
- Tomato varieties developed by Nepali farmers that tolerate extreme heat and resist disease.⁷⁸

Salt-tolerant

- Rice varieties that tolerate saline soils and other problems⁷⁴
- Durum wheat that yields 25% more in saline soils than a commonly used variety^{79,80}
- Indigenous crop varieties from India that

tolerate saline soils, stored by the Indian seed-keeping NGO, Navdanya. Navdanya reported that it gave some of these seeds to farmers in the wake of the 2004 tsunami, enabling them to continue farming in salt-saturated soils in spite of scientists' warnings that they would have to abandon the land temporarily.⁸¹

- High-yield, pest-resistant, and disease-resistant
- High-yield, multi-disease-resistant beans for farmers in Central and East Africa⁸²
- High-yield, disease-resistant cassava for Africa⁸³
- Australian high-yield maize varieties targeted at non-GM Asian markets⁸⁴
- Maize that resists the Striga parasitic weed pest and tolerates drought, for African farmers⁶⁹
- Maize that resists the grain borer pest⁸⁵
- "Green Super-Rice" bred for high yield and disease resistance⁷⁴
- High-yield soybeans that resist the cyst nematode pest⁸⁶
- Aphid-resistant soybeans⁸⁷
- High-yield tomato with sweeter fruit⁸⁸
- High-yield, pest-resistant chickpeas⁸⁹
- Sweet potato that is highly resistant to nematodes and moderately resistant to insect pests and Fusarium wilt, a fungal disease⁹⁰
- High-yield, high-nutrition, and pest-resistant "superwheat"⁹¹
- Habanero peppers with resistance to root-knot nematodes.⁹²
- Potatoes that resist late blight and other diseases^{93,94,95,96}
- Potatoes that resist golden nematode and common scab – and appeal to food manufacturers due to good chipping and storage qualities⁹⁷
- Potato that resists root-knot nematodes⁹⁸
- Papayas that resist ringspot virus⁹⁹ – in spite of numerous claims from the GM lobby that only GM was able to produce a resistant papaya. Interestingly, there even seems to be doubt about the frequent claim that the GM virus-resistant papaya saved Hawaii's papaya industry. The GM papaya has dominated Hawaiian papaya production since the late 1990s, but Hawaii's Department of Agriculture reportedly said that the annual yield of papayas in 2009 was lower than when the ringspot virus was at its peak.¹⁰⁰

An article in the Hawaii press said that GM has not saved Hawaii's papaya industry, which has been in decline since 2002. The article cites as a possible reason the market rejection that has plagued GM papayas from the beginning.¹⁰¹

Nutritionally fortified and health-promoting

- Soybeans containing high levels of oleic acid, reducing the need for hydrogenation, a process that leads to the formation of unhealthy trans fats¹⁰²
- Beta-carotene-enriched orange maize, aimed at poor people suffering from vitamin A deficiency^{103,104}
- Millet rich in iron, wheat abundant in zinc, and beta-carotene-enriched cassava¹⁰⁵
- Iron-fortified maize, which has been shown in a study to decrease anaemia in children^{106,107}
- Purple potatoes containing high levels of the cancer-fighting antioxidants, anthocyanins^{108,109}
- A tomato containing high levels of the antioxidant, lycopene, which has been found in studies to have the potential to combat heart attacks, stroke, and cancer.¹¹⁰
- Low-allergy peanuts.¹¹¹ In a separate development, a process has been discovered to render ordinary peanuts allergen-free.¹¹²

7.3.3. Conventional breeding is quicker and cheaper than GM

"The overall cost to bring a new biotech

Conclusion to Section 7

GM crops are promoted as a way of solving world hunger. But this argument does not stand up to analysis, since there are no GM crops with a higher intrinsic yield or that cope better with challenging climate conditions than non-GM varieties.

Most GM crops are engineered to tolerate herbicides or to express a pesticide. They mostly go into biofuels, animal feed, and processed food – all products for affluent countries that have nothing to do with the food needs of the poor and hungry.

Hunger is in any case not caused by a lack of food in the world. It is a problem of distribution

trait to the market between 2008 and 2012 is on average \$136 million]."

– Phillips McDougall, "The cost and time involved in the discovery, development and authorisation of a new plant biotechnology derived trait: A consultancy study for Crop Life International"¹¹³

"Genetic engineering might be worth the extra cost if classical breeding were unable to impart such desirable traits as drought-, flood- and pest-resistance, and fertilizer efficiency. But in case after case, classical breeding is delivering the goods."

– Margaret Mellon and Doug Gurian-Sherman⁵¹

An industry consultancy study put the cost of developing a GM trait at \$136 million.¹¹³ Even Monsanto has admitted that non-GM plant breeding is quicker and "significantly cheaper" than GM. Monsanto said it takes ten years to develop a GM seed, in contrast with a conventionally bred variety, which takes only 5–8 years.¹¹⁴ The plant breeder Major M. Goodman of North Carolina State University said the cost of developing a GM trait was fifty times as much as the cost of developing an equivalent conventionally bred plant variety. Goodman called the cost of GM breeding a "formidable barrier" to its expansion.⁵⁰

Time and cost are vital considerations for the Global South, where the need for crop varieties adapted to local conditions is urgent, yet farmers cannot afford expensive seeds and inputs.

and poverty. Poor people have no money to buy food, and increasingly, no land on which to grow it.

A few GM crops have been developed to help poor farmers in Africa. But they have had disastrous results, leaving the farmers who adopted them worse off than before. In contrast, conventional breeding programs have developed non-GM crops far more cheaply and successfully.

Breeding improved crop varieties is part of the answer to food security – the other part is how crops are grown and land is managed. The

IAASTD report, commissioned by the World Bank and United Nations and authored by over 400 international experts and scientists, concluded that the key to food security lay in agroecological farming methods. The report did not endorse GM as a solution, noting that yields were “variable”.

Other studies confirm that agroecological farming has resulted in significant yield and income benefits to farmers in the Global South, while preserving soil for future generations.

The expense of GM seeds and the chemical inputs on which they often rely make them irrelevant to solving the problem of hunger. GM

seeds are patented and owned by multinational corporations and farmers are forbidden from saving seed to replant, shifting control of the food supply from farmers to corporations. While non-GM seed is also increasingly patented, the GM process lends itself more easily to patenting than conventional breeding.

Finally, GM is simply not needed to feed the world. Conventional plant breeding has successfully delivered crops that are high-yielding, disease- and pest-resistant, tolerant of drought and other climatic extremes, and nutritionally enhanced – at a fraction of the cost of GM.

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CONCLUSION

Genetically modified (GM) crops are promoted on the basis of far-reaching claims from the industry and its supporters, such as:

- Humans have been genetically modifying crops for centuries and genetic engineering is no different
- GM crops are safe for human and animal health and the environment
- GM crops increase yields and reduce pesticide use
- GM will produce supercrops that tolerate drought, resist pests and disease, and provide improved nutritional value
- GM crops are “an important tool in the toolbox” to feed the world.

However, based on the evidence presented in this report, these claims are misleading. The GM process is completely different from natural breeding and entails different risks. The GM transgene insertion and associated tissue culture processes are imprecise and highly mutagenic, causing unpredictable changes in the DNA, proteins, and biochemical composition of the resulting GM crop that can lead to unexpected toxic or allergenic effects and nutritional disturbances.

There is no scientific consensus that GM crops are safe, especially when the views of the scientific community independent of the GM crop development industry are taken into account. Toxicological studies in laboratory animals and livestock have revealed unexpected harmful effects from a diet containing GM crops, including some that are already in the human food and feed supply. Among the most marked effects are disturbances in liver and kidney function.

Many of these studies, including some conducted by the GM crop industry and others commissioned by the EU, have been incorrectly claimed by GM proponents to show that GM crops are safe when in fact, they show harmful effects. In some cases, advocates of GM crops have admitted that statistically significant differences were found between the GM and non-GM feeds under test but have dismissed

them as “not biologically relevant/significant”. However, these terms have not been defined and are scientifically meaningless.

Most animal feeding studies on GM crops have been relatively short – 30–90 days in length (technically called medium-term studies). What is needed are long-term and multi-generational studies to see if the worrying signs of toxicity observed in medium-term investigations develop into serious disease. Long-term studies of this type are not required for GM crops by government regulators anywhere in the world.

This and other inadequacies of the regulatory regime for GM crops and foods mean that it is too weak to protect consumers from the potential hazards posed by the technology. Regulation is weakest in the US and is inadequate in most regions of the world, including Europe.

GM crops have not delivered on their promises and, based on current evidence, it seems unlikely that they will provide sustainable solutions to the problems that face humanity, such as hunger and climate change.

Claims that GM technology will help feed the world are not credible in the light of the fact that GM technology has not increased the intrinsic yield of crops. While yields for major crops have increased in recent decades, this has been as a result of conventional breeding successes, not due to GM.

Also, the majority of GM crops are commodity crops grown on a large scale for affluent countries, such as soy and maize. A few GM crops have been developed for small-scale farmers in Africa, such as a sweet potato and cassava varieties that were intended to be virus-resistant, but these have failed miserably. In contrast, projects using conventional breeding have succeeded at a fraction of the cost of the GM projects.

GM crops have not decreased pesticide use, but have increased it. In particular, the widespread adoption of GM Roundup Ready crops has led to over-reliance on Roundup herbicide, leading to the spread of resistant weeds. This in turn has required farmers to spray more Roundup and

mixtures of chemicals in an attempt to control weeds.

Roundup is not safe or benign. It has been found to cause malformations in laboratory animals, to be toxic to human cells at very low doses, and to cause DNA damage in humans and animals. Epidemiological studies have found an association between Roundup exposure and cancer, premature births and miscarriages, and impaired neurological development in humans. In addition, Roundup applications can cause increases in plant diseases, including infection with *Fusarium*, a fungus that negatively impacts yields as well as producing toxins that can enter the food chain and affect the health of humans and livestock.

As Roundup fails under the onslaught of resistant weeds, the GM industry is developing multi-herbicide-tolerant crops that withstand being sprayed with potentially even more toxic herbicides, such as 2,4-D. These crops will lead to an immediate escalation in the use of these herbicides.

It is often claimed that GM Bt insecticidal crops reduce the need for chemical insecticide sprays. But these reductions, when they occur, are often temporary. Resistance has developed among target pests and even when control of the target pest has been successful, secondary pests have moved into the ecological niche. These developments demonstrate that GM Bt technology is not sustainable. In addition, Bt crops are themselves insecticide-containing plants, so even when they work as intended, they do not eliminate or reduce insecticides but simply change the way in which insecticides are used.

Advocates often claim that GM Bt crops are safe because Bt toxin has been safely used for decades as a spray to kill pests by chemical and organic farmers. But the Bt toxin expressed in GM plants is structurally very different from natural Bt used as a spray. The Bt toxin in GM plants is not always fully broken down in digestion and has been found to have toxic effects on laboratory animals and non-target organisms fed on such crops.

GM proponents have long promised climate-ready and drought-tolerant crops, but conventional breeding has been far more

successful than GM technology in producing such crops. This is unsurprising, as these traits are genetically complex and cannot be produced by manipulating one or two genes.

GM herbicide-tolerant crops are often claimed to be climate-friendly because they are grown using the no-till farming method, which uses herbicides instead of ploughing to control weeds. No-till farming with GM crops is said to store carbon more effectively in the soil than ploughing, which releases carbon into the atmosphere as carbon dioxide. However, studies show that no-till fields do not store carbon more effectively than ploughed fields when deeper levels of soil are measured, throwing into question claims that no-till with GM crops offers a solution to climate change. In addition, the adoption of no-till with GM herbicide-tolerant crops has been found to increase the negative environmental impact of soy cultivation, because of the herbicides used.

Based on the evidence presented in this report, it is clear that GM technology has failed to deliver on its promises. GM technology is fundamentally unsound and poses scientifically proven risks to human and animal health, as well as the environment. The claims made for the benefits of GM crops are highly exaggerated and GM crop technology has been shown to be unsustainable.

It is not necessary to accept the risks posed by GM crops when conventional breeding – sometimes assisted by safe biotechnologies such as marker assisted selection – continues to successfully produce crops that are high-yielding, drought-tolerant, climate-ready, pest- and disease-resistant, and nutritious. Conventional breeding, the existing crop varieties developed by farmers worldwide, and agroecological farming methods, are proven effective methods of meeting our current and future food needs.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:33 AM
To: AGL Testimony
Cc: goldielocksgrinds@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: testimony!.pdf

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Kelly Stern	Goldielocks Grinds w/ Yogarden LLC	Support	No
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Comments:

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As a health conscious individual, organic farmer, and chef living on the island of Oahu, I am extremely concerned about the health hazards caused by consuming genetically modified food and the severe chemicals that are sprayed upon the fruit and absorbed into the land for which we all live on.

For years now, humans have been researching the effects of genetically modified food. It has been proven over and over again that genetically modified food can lead to many health problems such as infertility, allergies, tumors, and even cancer. It seems so clear to me as an individual that this is not something that I would like to put into my body or any of the bodies that I'm preparing food for as a chef. As a chef, I thrive to provide only the best for my consumers, which means the produce is grown organically and locally if possible. Unfortunately, so much of the land in Hawaii is being used to grow genetically modified food that pollutes our aina and then is shipped away. Instead of using this land for out sourcing a population that does not live on Hawaii, we should be growing food to sustain these islands. We are so blessed to live on an island with a tropical climate, where we can grow food year round. So why are we not doing this? We have the ability to provide food for these islands, yet we rely on boats and airplanes to bring 90% of the food to these islands. I choose to support local farmers who work hard to provide food for this island. I choose to buy food that has not been in any way genetically modified for the health of myself, my family, my clients, and this aina.

As a farmer, I choose to only plant organic seeds. I choose to make organic soil mixes that are sustainable and add to the quality of this land. People who eat the food that my partner and I grow, taste the difference. There is love put into the land on our farm. We are not driven by the money, but by the love and commitment we have made to living a healthy lifestyle and supporting others who do. We all have the choice to know what we are putting into our bodies. We all have the right as citizens to know what we are purchasing. Label GMOs.

HB 174

Aloha Legislators

I am writing in support of HB 174.

The history of GMO has been created by corporate influence in government. Michael Taylor past attorney for Monsanto orchestrated the idea that genetically modified organisms are not significantly different from naturally occurring organisms after he had gone through the revolving door from corporate to government employment.

History is being rewritten to give the American people a choice in the process. You are in the process of giving back to the people the right to choose....at the most basic level, the right to choose based on full disclosure is closely related to free speech.

I applaud you for being in the process and hope with all my heart that those who stand in support of a basic right being returned to the people prevail in their efforts to create a GMO labeling law.

Mahalo,
Bill Greenleaf
Greenleaf Farm
Makawao

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 12:11 AM
To: AGL Testimony
Cc: redahi@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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B.A. McClintock	Respiratory & Environmental Disabilities Assoc HI	Support	No
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Comments: Those of us who are disabled with MCS and other environmental illnesses also suffer with severe food and environmental allergies. We beg you - you who have our health and well-being in your hands to please protect us by labeling all genetically modified products. Do not be fooled by the companies trying to sell us something. When they tell you GMO's have been proven safe and have been used for many years, they are only quoting their own scientists. Independent scientists, world-wide have found quite the opposite. GMOs pose adverse environmental impacts as well. They have been proven to produce super weeds, increased herbicide usage and with that fact, increase everyone's risk of cancer by the very product these companies also produce to combat these additional environmental problems. We are on the treadmill of our lives and you can stop it beginning with the labeling of GMO's. We are only asking you to do your job and protect the citizens of your own state.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:52 PM
To: AGL Testimony
Cc: rangien2010@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Puanani Rogers	Ho`okipa Network - Kauai	Support	No
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Comments: I testify in strong support of HB 174, GMO labeling bill. We have the right to know!
Mahalo a nui, Puanani Rogers

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:24 AM
To: AGL Testimony
Cc: rdenhart_ista@ilcrop.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Denhart	Illinois Seed Trade Assoc.	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:33 AM
To: AGL Testimony
Cc: rodney_irvin2000@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
rodney irvin	Sun Prairie Seeds	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:35 AM
To: AGL Testimony
Cc: brice@gtec.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
William Rice	Rice Seed Company	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:23 AM
To: AGL Testimony
Cc: afulton@wyffels.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alicia Fulton	Wyffels Hybrids, Inc.	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:40 AM
To: AGL Testimony
Cc: richardc@healthyplants.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Richard Cornett	The Western Plant Health Association	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:58 AM
To: AGL Testimony
Cc: slthompson@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Sarah Thompson	Dow AgroSciences	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:02 AM
To: AGL Testimony
Cc: susan@asmark.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Susan	Asmark Institute	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:03 AM
To: AGL Testimony
Cc: rich@palmergrain.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rich Arpin	Palmer Grain, Inc.	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:08 AM
To: AGL Testimony
Cc: kimb@pawneecoop.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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KIM BARNES	Pawnee county Coop	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:23 AM
To: AGL Testimony
Cc: ashinasunshina@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ashina Ashna	Kauai Rising	Support	No

Comments: Aloha Senators, Mahalo for choosing to hear HB 174. Please support the passage of GMO Labeling and HB 174. The people have a clear right to know what they are eating. Obviously only a nefarious agenda would strive to hide that information. And on another level, which is even more important, this is about much more significant issues. It is about our democracy and who you, our elected officials are actually representing. These are times when the challenges are truly large, and we clearly recognize and empathize with the pressures that each of you are under continuously. These are times when all of us are being severely tested to see if we have the courage to stand up for the deepest Truth that we know in our hearts. What do we make more important than the well being of our people and the land that we call our home? And why would we choose to make anything more important than those values?? If we knew that this was our last day on Earth, what would we choose??? What will you choose?? When each one of us finds the courage to actually listen to, and act upon that place in our heart that recognizes Truth, a much better world for EVERYONE will emerge!! There are no special interest groups when Right Choices are made and Truth prevails. Right choices benefit everyone!! We believe that a better world is rapidly approaching and that it's emergence is assured. We merely get to decide, through our choices, how painful that birth will be. Of course in some circles these perspectives are considered naive. But they are riding on a rapidly rising tide of growing awareness everywhere. It will not be turned aside. It's time to catch that wave!! Please support GMO Labeling by taking this one small step that is the passage of HB 174. The courage of that choice will support thousands of your people, rather than merely the greedy few, and that leadership will inspire your colleagues, your people, all of Hawaii, and far beyond. You are facing a wonderful opportunity to truly make a difference for so many. It is a very valuable gift you are being offered in these times if you will but choose to receive it. You have the opportunity to show up and, not only receive that gift, but give an even greater gift to so many; to catalyze the extraordinary changes being energized in these times. Not everyone is given the opportunity you have before you now. May we all be blessed with the Wisdom to know what is right, and the courage to do what is right. PLEASE courageously seize the day!! Support HB 174.....and your people and the islands upon which you live. Aloha, Ashina Ashina

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:24 AM
To: AGL Testimony
Cc: coopcurt@ckt.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Curtis Harris	Producers Cooperative Association	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:36 AM
To: AGL Testimony
Cc: mariemauger@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Marie Mauger	Spirit of the Earth Farm Foundation	Comments Only	No
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Comments: I am in favor of labeling of all GMO crops, by-products, value-added products. This "right -to-know" is at the heart of life, liberty, and the pursuit of happiness.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:14 AM
To: AGL Testimony
Cc: corey@bigislanddairy.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Corey Gillins	Big Island Dairy	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:26 AM
To: AGL Testimony
Cc: legechair@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Simon Russell	Hawaii Farmer's Union United	Support	No

Comments: Aloha Honorable Senators, We the people deserve the right to choose not to eat GMOs, so please vote for labeling. I strongly support HB 174 Mahalo, Simon Russell

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:31 AM
To: AGL Testimony
Cc: steven.lupkes@basf.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Lupkes	BASF Plant Science	Oppose	No

Comments: 174 does not communicate information relative to health, safety and nutrition. We welcome labeling that is not misleading or discriminatory.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:40 AM
To: AGL Testimony
Cc: jeffreyudv@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeffrey Bronfman	The Aurora Foundation	Comments Only	No

Comments: I would ask that that the committee(s) amend HB174 in three essential important ways: 1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) I am also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) I would also ask that Section 9 be amended to take effect 1 July 2014. Thanks for your good work on behalf of us all.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:50 AM
To: AGL Testimony
Cc: loralynne@earthlink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lora Lynne	Kauai Rising	Comments Only	No

Comments: As a resident of Kauai I am submitting my comments to the senators that I absolutely require that you pass this bill. Food is to be labeled despite the efforts of the multi national companies to keep it unrecognizable to the public as to what is going on. The GMO industry is a chemical company experimenting with the food system which is required for all human existence. I want a clear choice when I buy food if it has GMO products in it or not, it is a simple liberty. You taking a stand on this labeling bill is far reaching and important for those of us who believe that we are the "persons" with constitutional rights. Thank you ahead for your vote to label our food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:57 AM
To: AGL Testimony
Cc: mtresler@grovefarm.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Tresler	Grove Farm Company, Inc.	Oppose	No

Comments: Labeling is a federal issue.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony
Cc: esfhawaii@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Elijah Frank	Ohana O Kaua'i	Support	No
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Comments: We at Ohana O Kaua'i strongly support the labeling of all GMO products. We strongly support any labeling bill at this point. HB 174 is the only labeling bill left so we are supporting it 100 percent. We know you have the ability to get this done if you have the desire. No excuses will be excepted. Writing bills and amending them so they pass and are constitutional is your job. You have the opportunity to make this the strongest labeling possible. If that means he labeling of all GMO whole foods, including Hawaii GMO whole foods than make it happen. The time is now to choose what is right for all of Hawaii and the people have the right to know what is in their food. We demand to know what is in our food. Aloha Elijah Frank Ohana O Kaua'i

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:10 AM
To: AGL Testimony
Cc: 77coconuts@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: CHEMICALS IN YOUR FOOD DO.jpg

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

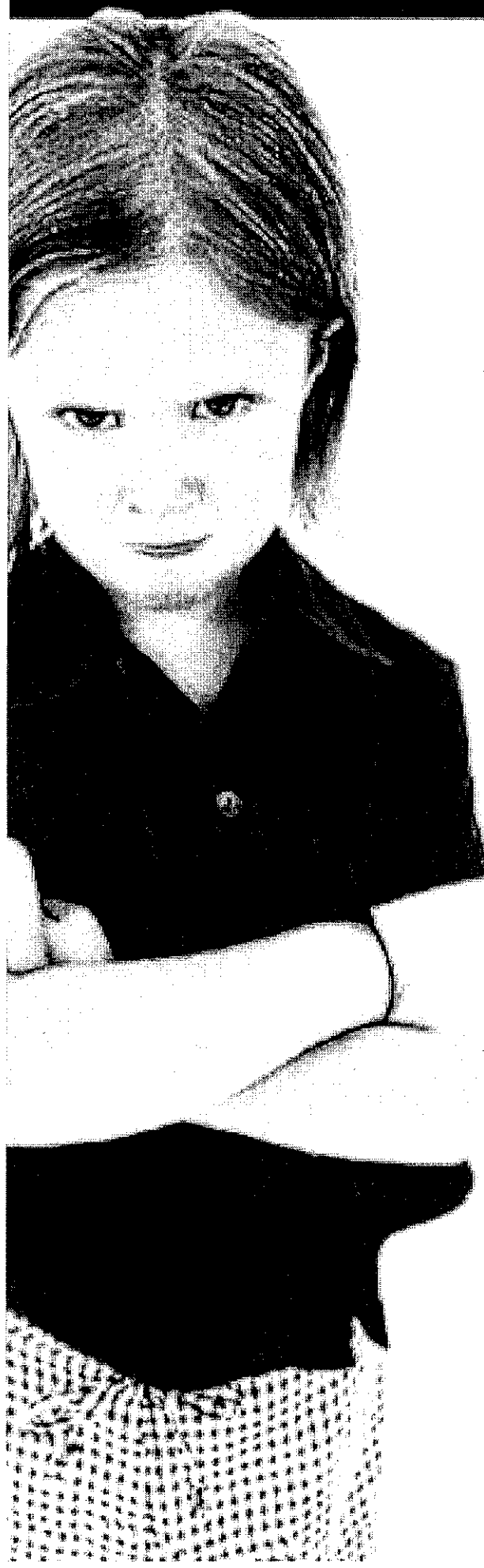
Submitted By	Organization	Testifier Position	Present at Hearing
Kahala Lei Azuma Maui	Voice of the People	Support	No

Comments: Monsanto's foods are to blame for a nation of unhealthy people, and GMOs are prohibited elsewhere in the world. Monsanto does not make up the nation, we do! Allowing GMOs to go unlabeled is considered a WAR CRIME and is punishable by law. To let this go further is to openly commit treason against your community.

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CHEMICALS UNDER THE MICROSCOPE



Additive	Where used	Potential problems
E102 Tartrazine	Sweets, biscuits, mushy peas	Hyperactivity, asthma, rashes
E124 Ponceau 4R	Sweets, biscuits, drinks	Allergy, intolerance
E110 Sunset Yellow	Sweets, drinks, ice cream	Gastric upset, allergy
E122 Carmoisine	Biscuits, jelly, sweets, ready meals	Allergy, intolerance
E104 Quinoline Yellow	Sweets, smoked haddock, pickles	Hyperactivity, asthma, rashes
E129 Allura Red	Soft drinks, cocktail sausages	Some evidence of hypersensitivity
E211 Sodium benzoate	Soft drinks, baked goods, lollies	Hyperactivity, asthma

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:30 PM
To: AGL Testimony
Cc: kauaimuse@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: I strongly support the food labeling Bill HB174.doc

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Diamond	Individual	Support	No

Comments:

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HB 174 testimony in support:

Aloha Honorable Senators of the Agriculture, Consumer Protection and Health Committees,

This Bill needs to be amended in order to pass constitutional muster; please include labeling GMO whole foods that are locally produced so as not to conflict with the Commerce Clause.

It is of paramount importance that you pass into law GMO food labeling this year. The majority of the State's counties for two years in a row have affirmed their decision and goal to have this happen at the state level in Hawaii. You need to listen to them; they are your constituents. If nothing else, consider your re-election. This issue is not going away, so why does it seem like our elected officials in State office want to ignore the concerns that the majority of people in Hawaii have for the safety and freedom to choose not to be part of an uncontrolled experiment? What ground beyond citing Biotech industry conducted 90 day feeding trials do you have to ensure that there are not long term health consequences? A 90 day study is not a long term study. And considering the history of the companies that do their own studies that claim GMO's are safe, it's no small wonder that any trust is still put into these companies to self-regulate. Calling a trans-genetic novel organism the "substantial equivalent" of before it is even properly tested to see if that's true is the basis for such a lack of true oversight of this experimental industry. If real third party safety studies were conducted before releasing the novel foods to the public, the red flags that have gone up in such studies already being conducted elsewhere besides the biotech industry itself would ensure that at the bare minimum these novel organisms would be labeled. This may be a new technology, but that doesn't automatically make the science sound all by itself.

I am a parent, and that is the most important reason, among many others, that I support this bill. The fact that we (Hawaii) sell GMO papaya to other countries (like Japan) and already put a label on it, without any complaints from the industry, should tell you that labeling itself is not expensive. But ask yourself this question: In a land of freedom and liberty that we are, why are we denied the same label that is put on produce grown in Hawaii for export, without controversy? That is what is controversial; not the labeling of these patented gene events, but the fact ours is the only free nation that, so far anyways, bars it's citizens the freedom to choose. If a biotech company can sue a non gmo farmer for what amounts to gene pollution on an adjacent non gmo farm, yet as consumers we cannot be allowed to know if we are eating these gene events, then there is something seriously out of balance. You, as elected officials are here to represent the people, not just big industries such as Monsanto and Syngenta. There is nothing financial to gain in this fight to get GMO labeling. It's taking nothing but time and energy we could be doing something more productive. But we are citizens concerned about our health and well being. The only gain of simple labeling is in that Hawaii's people will have the right to know what we are eating and be able to make choices about what we are eating. It's for the protection of public health that truth in labeling laws already exist. On the other hand, the Crop Improvement Association, Farm Bureau, and many other biotech industry front groups have only one reason they don't want labels, and it's not to look out for the people's health or even the livelihood of farmers. No, instead it's their own bottom line. That is why you must balance this equation, for the people, and give

us consumers the right to choose. We are supposed to be living in a free country with a free market; this current situation looks more like state sponsored control of our diet.

All the food companies that are lobbying against this bill already have to label gmo foods for export to the 30+ other countries that require it for import; they do this without controversy, or they source non-gmo ingredients for their products. Please help preserve our liberty to opt out of involuntarily eating foods that have been linked to many new food allergies, liver toxicity, sterility, and cancer...just to name a few.

The Honolulu County Council recently rejected the wish by all the other Counties of the State of Hawaii to get a GMO label law passed this year by saying that "people who don't like GMO food can already avoid it by eating organic". This is a very irresponsible thing to say, when %75 of the food on grocery store shelves secretly contains GMO ingredients. Not to mention what public schools are feeding our keiki. Having the right to choose to not eat this stuff because of clear labeling is exactly the same thing as having the right to avoid ingredients we know we don't want to eat by simply looking at the ingredients on the package, something already well established and demanded by law. Those laws are there for very good reasons like health, liberty and science.

The argument is often posited that labeling GMO foods will "hurt the farmers". Well, actually an article that came out last month in the Hilo Tribune Herald disproves that. (<http://hawaii.tribune-herald.com/sections/news/local-news/promising-papayas.html>). It discusses Japanese consumption of GMO papaya , one year after the ban that Japan had on importing Hawaiian papaya for the last decade or so (due to safety concerns when the GMO Rainbow papaya was introduced). The article reports that in all of 2012, only 4500 lbs of GMO Rainbow papaya was sold to the Japanese market as a whole, as opposed to 1.3 million lbs of "non-gmo" papaya sold to Japan in the same year. Clearly, they don't want to eat much of it. And neither do many other countries. So GMO is actually bad for farmers in the long run. Reason? The market decides what it wants; we vote with our dollars. This is basic to liberty and it should not be controversial in this country at all to simply label what our food contains.

I strongly urge that this bill be amended to take effect within a reasonable amount of time. July 1, 2112 as an effective date seems to show hesitation and lack of faith in the proposed legislation; if fears of Federal pre-emption to a State Labeling Law are the cause of such a fear, this body would do well to look into what rights are vested in the State for this type of State law. I have looked, and it seems pretty clear that the States do retain the right as long as it explicitly relates to protecting the health of its citizens.

Mahalo for your support of this Bill,

Blake Watson

(808)315-4007, Volcano, Hawaii

References of the most recent publications showing evidence of risk Birth-defects and skeletal malformations: Antoniou M, Habib MEM, Howard CV, Jennings RC, Leifert C, et al. (2012) Teratogenic Effects of Glyphosate-Based Herbicides: Divergence of Regulatory Decisions from Scientific Evidence. *J Environ Anal Toxicol* S4:006. doi:10.4172/2161-0525.S4-00 Cell death from exposure to Roundup: Martini, C.N. Matías Gabrielli, María del C. Vila. 2012. A commercial formulation of glyphosate inhibits proliferation and differentiation to adipocytes and induces apoptosis in 3T3-L1 fibroblasts. *Toxicology in Vitro* 26:1007–1013. <http://dx.doi.org/10.1016/j.tiv.2012.04.017> Liver and kidney toxicity: Séralini, G.-E., et al. Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize. *Food Chem. Toxicol.* (2012), <http://dx.doi.org/10.1016/j.fct.2012.08.005> Other Reviews showing evidence of risk: American Academy of Environmental Medicine. 2009.

To: Agriculture Committee --Senator Clarence K. Nishihara, Chair, and Senator Ronald D. Kouchi, Vice Chair.

To: Commerce and Consumer Protection Committee-- Senator Rosalyn H. Baker, Chair and Senator Brickwood Galuteria, Vice Chair

To: Health Committee--Senator Green, Chair, Senator Rosalyn H. Baker, Vice Chair

From: Wendy Gibson R.N., B.S.N.

RE: HB 174 HD2

Hearing: Thursday, March 21, 2013, 0900 am. Room 229

Position: Support with Amendments

Good Morning Chairs, Vice Chairs and Members of the Committees,

My name is Wendy Gibson and I am an RN. I have worked in healthcare for about 35 years, 20 of those in Hawaii. I strongly support HB 174 HD2, with amendments.

Thank you for accepting the challenge of hearing this bill. I do understand that there will be parts of this bill that need to be worked on to make it acceptable. I have confidence that you be a champion for your constituents and help to make Hawaii the first state to pass a GMO labeling bill. You have a lot of support at many levels.

My father was a chemist who worked on rocket jet fuel research and later became a nuclear engineer at a nuclear power plant. My mother's father was a doctor. I grew up reading a lot, looking through my father's scientific journals and Grandpa's old medical books. Later when I was in the School of Nursing and Dental Hygiene at the University of Hawaii at Manoa, I took a course called "Nursing Research". I learned how to analyze different types of scientific research. It is not easy to discern "Good Research" from "Bad Research" unless you have good guidance.

For an experiment to qualify as "Good research" it needs to be well constructed and funded by Non-interested parties. Good research usually takes many years and can be very expensive.

If the only science you are taking into consideration is from GMO companies or the FDA, I am concerned that the information that you are getting is NOT GOOD RESEARCH. Although the FDA has set a FEDERAL standard for labeling GMOs --by simply NOT requiring ANY label, there are legitimate concerns about the fitness of GMO foods for human consumption. Even President Barack Obama promised that he would work to get GMOs labeled and some of our

Congressional leaders are working on labeling bills. To me, this indicates some legitimate concerns.

My sister was a product manager for a bioengineering firm in California--providing the pieces and parts of DNA needed for genetic research. She married a microbiologist. My Brother-In-Law created GMOs for a pharmaceutical company who was trying to create new drugs for HIV-infected patients. I was fascinated by the science and the experiments he was performing. I know that GMOs have their place in medicine. The science has created many useful drugs. And they are tested for safety.

GMO foods are constructed in a similar way to medications but require no real safety testing.

I KNOW that GMO foods DO NOT have a safe place at my table. After reading some of the GOOD research that was done on GMO foods I would like to avoid eating them. Only, I don't always know which foods are GMO or not because there is no label.

Although the FDA does not require special labeling of bioengineered foods, that does not mean that they are completely safe. The FDA and GMO Corporations cannot agree upon who should do safety testing, so neither one will take the responsibility and little or none has been required or done.

In other countries, that is not true. There is some good science and that is why many countries have either required labeling of GMOS or BANNED THEM ENTIRELY FROM THE COUNTRY. That is why Hawaiian papaya that is shipped to Japan has a GMO label.

In this instance labeling GMO foods has **increased commerce** rather than restricted it. To make this bill less discriminatory, **please add an amendment to include LOCAL GMO PRODUCE.**

Allergies are one of the many health concerns. Some doctors are dealing with new types of allergies to the new foods. The increase in soy allergies coincides with the introduction of GMO soy.

GMO companies say that "corn PLUS genetic modification is still just corn". Well, no it's not, because what they are modifying are PROTEINS! And, proteins are what your body's immune system reacts to. And they are creating NEW proteins that behave differently than the old proteins. These are proteins that are foreign to our immune systems and are causing negative immune responses in animal testing.

Some potential GMO farmers, invested money to test the product (peas) first. They decided not to grow the crop because of health concerns. This is NEW science, not like the old science that farmers used to use to create HYBRIDS or the "best seed" . These are not naturally occurring organisms.

Please pay attention to the "concerned citizens". This not a mass hysteria . The people who oppose having GMOs in their food--the one's jumping up and down with signs and posters-- actually have some good science to back them up. They are trying very hard to get you to listen to their real concerns without getting drowned out by the big corporation(s).

Although GMO proponents say that labeling GMOs is in conflict with the manufacturer's FIRST AMENDMENT right to free speech, I recall hearing that "No right is absolute". This is especially true if exercising the right to free speech might be hazardous to someone else--such as shouting "Fire" in a crowded theater.

I believe that the health of the residents in Hawaii should come first. Please help to get my food labeled so that I can make informed purchases.

I believe that this bill is NECESSARY in order to prevent consumer confusion about whether the produce they purchase is genetically modified or not. Monitoring could be done by a Consumer Action Group. Three letters on a tiny label cannot be that expensive.

Thank you again for hearing this bill and my concerns,

Wendy Gibson R.N., B.S.N.

Dear Senators,

I'm sending this email as testimony in **support of HB174** that imposes labeling requirements for GMO foods.

I understand that the bill as it stands is not perfect, but my hope is that it will at least be heard. If it is not passed in some form, it will at least start a discussion about this issue and possibly be a stepping stone in the right direction.

Obviously this is a controversial subject, as many are. But given that recent studies are showing a potential link between the long-term consumption of GMO foods and increased health risk, personally I would rather be safe than sorry. And if this bill becomes law, everyone would at least be able to make that informed decision when they buy their groceries.

I understand that there is potential economic impact (Possible loss of GMO related jobs, loss of sales, etc.) and possible trade violations (World Trade Organization requirements). But 20 states are considering GMO labelling legislation and the FDA has received over 1 million public comments on a national petition against GMO foods. So it would seem that a lot of people have some concern with GMO foods. And I would like to think that public health and safety trump economic impact and trade rules.

Thank you for your time,

Chad Morikawa

District 21-Moilili

March 20, 2013

Chairpersons Nishihara, Baker and Green and Honorable Members of the Agriculture, Consumer Protection and Health Committees:

I write in **strong support** of labeling foods containing genetically modified organisms. Thank you for taking the time to hear this bill. I respectfully ask that you consider scientific evidence and consumer rights and vote in favor of this measure.

As an ordinary consumer and a Hawaii resident, I believe that there should be **greater transparency** in our food supply. I would like to know what I'm eating and avoid foods that may harm me and my family.

Irradiated food was also declared "safe" by the FDA (which does no testing of its own) and by prevailing scientific wisdom but later required to be labeled when serious risks to human health were uncovered, largely under broad public pressure.

GMOs have not been tested thoroughly. GMO safety tests on animals paid for by biotech companies are sometimes as short as 90 days, which is not long enough to prove that a substance is safe for long-term, multi-generational human consumption.

Genetically modified products contain novel proteins that could trigger allergic reactions in people who are either allergic to one of the components of the GMO or in people who are allergic only to the new substance.

In addition, results of public polling in Hawaii shows that 80% (Star Advertiser March 8) and 72% (UH, CTAHR, 2007), respectively, of residents support labeling. The public support for this issue and the advocacy by the lone physician among you, Senator Josh Green, MD, are compelling.

Although some have argued that this measure will run up against federal jurisdictions, or interstate commerce clauses, I am confident that the state does have a compelling interest in labeling, and that the fixes to technical impediments suggested by Earthjustice Hawaii and other members of the House of Representatives could preclude that problem.

Finally, I do not believe labeling will have an adverse impact on food prices. For example, 16 multinational companies doing business in the EU **where GMOs are banned** already make GMO-free formulations. In any case, where human health and environmental safety are involved, the **precautionary principle**, not economic expediency, should be followed above all.

Thank you for the opportunity to testify.

Sincerely,

Karen Shishido

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:44 PM
To: AGL Testimony
Cc: writetopaula@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO.doc

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paula Cole	Individual	Support	No

Comments: I support the labeling of our food to indicate whether products are genetically modified or made with genetically modified ingredients. Consumers have a right to know whether the food they are eating is produced using genetic modification techniques. GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.), and we do not really know the long-term health impacts of the consumption of GMO foods. I would also like the bill be amended to include labeling of Hawaii produce that is GMO.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:08 PM
To: AGL Testimony
Cc: petershepardcole@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO.doc

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Peter Cole	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:42 PM
To: AGL Testimony
Cc: michelle.l.wendt@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO.doc

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Wendt	Individual	Comments Only	No

Comments: Consumers have a right to know whether the food they are purchasing or eating is produced using genetic modification techniques. I request that the bill be amended to include labeling of Hawaii produce that is GMO, so that consumers know what they are purchasing and can make an informed decision. Genetically Modified Organisms (GMOs) pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) and threaten the future of Hawaii's agricultural sustainability. There are unknown long-term health impacts of the consumption of GMO foods. Many independent studies show cause for concern, and the impact of GMO's on the long-term health of all species (human, canine, bovine, etc) is unknown. The United States has the shortest life expectancy of all developed nations, which may be due to the extensive use of GMO in agriculture for decades.

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Stathie J. Prattas

POB 1044

Capt. Cook, HI 96704

Testimony is **support of HB 174** HD2

Aloha Chairman and committee. I am in **support of HB 174** HD2 requiring the labeling of GMO crops and food products!

In studies in France and the US, GMO foods have been shown to be unsafe to health. Consumers have a right to know what foods they are feeding to their families. Please, let them have a choice!

Labeling gives consumers a choice in what foods they buy.

Labeling is required to tell consumers how much fat, protein, and carbohydrates are in our foods, and so knowing about a product that can have serious health consequences is even more important to label.

For the sake of our people, pass GMO label requirements!! I further recommend that you amend the bill to **also require labeling of irradiated foods** as well, which create cancer-causing free radicals in the body, where studies have shown foods bombarded with Cesium - 137 to be at least as bad as GMO foods.

Please note that GMO labeling is required throughout the European Union countries, where 3 of those countries have outlawed GMO produced foods as well as using GMO ingredients. This trend is growing!

Mahalo for this opportunity to testify.

Testimony on HB174 to the Senate Agriculture, Commerce and Consumer Protection, and Health Committees on Thursday, 03-21-13 9:00 AM in conference room 229.

RE: LABELING OF GENETICALLY ENGINEERED FOOD PRODUCTS 3/19/13

Honorable Chairpersons and Committee Members,

Producers and distributors frequently argue against requiring GE labeling contending that it will increase the cost of food for consumers, as well as that it will make clearly visible to consumers a distinction they argue is of no consequence. What this controversy is really about is that the financial interests in GE crops will most likely lose market share and profits if consumers know what they are getting. In fact, Whole Foods Market reported that its sales of non-GMO products increased between 15% and 30% once they were labeled (TIME magazine, March 8, 2013)! I believe that government should protect the public's interest in the right of informed choice in the operation of a free market rather than protecting the continuing profits and market share of special interests propped up by withholding information from the consumer. I strongly support requiring labeling of GMO food products,

- 1) Regarding potential price increases, I have seen no real evidence of actual significant price increases in the nearly 50 countries where GE labeling has been required. No significant increase in food prices were observed in the EU after passage of the initial labeling requirement. Mr. David Byrne, European Commissioner for Health and Consumer Protection indicated in 2001 that “. . . when the labeling regime (based on DNA/protein) was introduced in 1997, it did not result in increased costs, despite the horrifying (double-digit) prediction of some interests. Similarly, when Norway introduced its current labeling regime (similar to the one now proposed), it did not provoke any price increase or disruption in trade.” (Speech/01/378, European Parliament, Brussels, 11 September 2001).
- 2) In regard to the actual evidence of potential price increases in the United States, law Professor Joanna M. Shepherd-Bailey wrote an assessment of the cost of GE labeling based, in large part, on FDA cost analysis of the impact of changes in labeling requirements. She concluded that if Prop 37 were adopted in California last year, “At most, the average California household will see total annual food expenditures increase by a one-time cost of \$1.27 to offset these labeling expenses.”(Economic Assessment: Proposed California Right to Know Genetically Engineered Food Act (Prop 37) Likely to Cause No Change in Food Prices, Minor Litigation Costs,

and Negligible Administrative Costs. Prepared for Emory University School of Law, 2012). Furthermore, she cited an FDA estimate that three-quarters of package labels are normally scheduled to be changed during any 30 month period (Food and Drug Administration, *Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrition Content Claims, and Health Claims*, 68 Federal Register 41477(2003)). Costs and contents are regularly being tracked, and labels periodically updated all the time. With a reasonable compliance period the proposed labeling changes can be part of the normal update process.

- 3) But many GE labeling opponents argue that the larger impact will be in more expensive cost of the food itself and its processing for the average consumer. In California, opponents of the Right to Know conducted a massive PR campaign in the final days before the vote claiming that requiring labeling would cost the average household \$350-\$400 annually. (Genetic Engineering & Biotechnology News, October 11, 2012). This, of course, was based on a 'worst case' assumptions where producers substituted all non-GMO foods for the GMO food products. And even for the 'worst case' this estimate has been challenged by multiple sources as being quite unrealistic (viz., Shepherd-Bailey, and Genetic Engineering & Biotechnology News, *supra*).

But the argument that producers and suppliers would have to change out most of their products if they had to be labeled is for me actually one of the strongest arguments **for** requiring GE labeling! The producers and distributors are clearly acknowledging that they are not supplying the consumer what we want, and that if we actually knew what we are getting many of us would not buy what they now are putting on the shelves.

And even if non-GMO conventional food, and especially certified organic food, were a bit more expensive, whether to purchase GMO or non-GMO products should be a consumer choice. Likely still a significant percentage of families won't want to spend a possible few extra dollars each week to buy organic and/or non-GMO produce. I have great confidence that innovative producers will continue to be happy to supply them with GMO foods at no significant increase in cost. A basic tenant of the free market system is that the producers and suppliers who best respond to consumer demand thrive and those who don't lose business. Most of us don't take lightly to businesses either getting government subsidies to keep producing what people don't want, or effectively getting a green light from the government to continue to sell us what we would not buy if we knew what it was.

- 4) GE labeling opponents strongly argue that GE foods 'do not differ from' the non-GE foods that they are derived from, and 'do not pose a health issue' (see, for example Maui Chamber of Commerce testimony to the House Agriculture Committee on February 4, 2012), even though some genetic modifications, such as for Bt corn, are actually promoted as pesticides. I have seen hundreds of studies and documentations from around the world that raise serious concerns about GMO foods. I am also aware of the legal restriction against unapproved research that Monsanto, Syngenta, *et. al.* have tried to impose on all purchasers of their seeds that has stifled independent scientific research (see *Seed Giants vs. U.S. Farmers*, A Report By the Center For Food Safety & Save Our Seeds, 2013). However, the issue here is more about the right of consumers to know what we are getting and make our own decisions about what is important to us. The recent outrage in Europe about beef products containing some horsemeat is instructive in this regard. It can be argued that horsemeat may be even more nutritious in many regards than beef (*Nutritional Characteristics of Horsemeat in Comparison to those of Beef and Pork*, Journal of Nutritional Research and Practice, 2007 Spring: 1(1):70-72). Yet many consumers, especially in the British Isles, demanded not to eat any horsemeat, and the government regulatory agencies and justice departments took prompt and decisive action to make sure consumer demand was satisfied, prompting extensive recalls and genetic testing of products. Likewise, I believe that many of the genetic modifications to our foods are much more radical than simple hybridization or selective breeding, resulting in significantly different products in the consumers' minds, and thus should be labeled as such.

I believe it is one purpose of government is to help insure transparency of information that the public considers important in our decision-making. I strongly urge you to mandate full labeling of products that are, or come from seed that are, genetically engineered, not only because of potential health issues that need independent research, but right now because of extensive consumer demand.

Gene Groves

Kihei, HI

Retired research sociologist, computer software engineer, investor, and educator.

Sited Sources below:

David Byrne, European Commissioner for Health and Consumer Protection, Proposal for a regulation on GM Food and Feed European Parliament, Brussels, 11 September 200, Speech/01/378 p. 4 on "Costs" http://ec.europa.eu/dgs/health_consumer/library/speeches/speech114_en.pdf

Alex Phillippidis, Weighing the Costs of GMO Labeling 2012. <http://www.genengnews.com/insight-and-intelligence/weighing-the-costs-of-b-gmo-b-b-labeling-b/77899699/>

Joanna M. Shepherd Bailey, Ph.D., Emory University School of Law, Economic-Assessment: Proposed California Right to Know Genetically Engineered Food Act (Prop 37) Likely to Cause No Change in Food Prices, Minor Litigation Costs, and Negligible Administrative Costs, 49 pages <http://www.anh-usa.org/wp-content/uploads/2012/08/GE-Food-Act-Costs-Assessment.pdf>

Food and Drug Administration, *Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrition Content Claims, and Health Claims*, 68 Federal Register 41477(2003)) <http://www.fda.gov/ohrms/dockets/98fr/03-17525.htm>

Chong-Eon Lee, corresponding author Pil-Nam Seong, Woon-Young Oh, Moon-Suck Ko, Kyu-Il Kim, and Jae-Hong Jeong *Nutritional Characteristics of Horsemeat in Comparison to those of Beef and Pork*, Journal of Nutritional Research and Practice, 2007 Spring: 1(1):70-72. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2882581/>

Legalize Strict GMO Labeling of ALL Food in Hawaii- We Deserve to Know

Please enact a law to protect us from the tumors and short lifespan that GMO food will cause. Even Europe cares more about its people than the USA and have banned GMO. GMO is our greedy American corporations way to ruin our fruit and vegetable supply like they have ravaged our meat supply – with chemicals that cannot be removed from the product that are only there to further their greedy profits. These chemicals are life-altering and there is no logical reason that we should endure this atrocity. Why should we be subject to GMO food that only exists to make more money for these evil companies?

They specifically want to be able to spray Round-Up on their crops without killing the crop itself. How can food with systemic Round-Up in it THAT CANNOT BE WASHED OFF be good for anybody to eat? These greedy corporations are massive and control most of our farmland. They are not in it for the good of the people. Their motives are greed and capitalism. We need to protect our people's health from this corporate greed.

Our health and our children's health depends on your enforcement of GMO labeling. Please do the right thing and do it with a vengeance. Protect our Hawaii.

Deborah Pawloski
B.S. Animal Science, University of Hawaii at Manoa

Loring Robbins
480 Kenolio Rd #15-206
Kihei, HI 96753
(808) 298-0627

March 19, 2013

Hawaii State Legislature
Hawaii State Capitol
415 South Beretania St.
Honolulu, HI 96813

Aloha,

I am writing to voice my support of bill HB 174. I live in Kihei with my wife Gena and our 9 year old daughter Sophia. My wife and I are very concerned with the increasing use of GMO food products in our food supply, and while we realized there are many claims by individuals and companies that GMO food products are safe, we feel that there are enough studies that raise serious doubts as to the safety of GMO food products to warrant clear labeling of these products so that consumers can make their own decisions about what type of ingredients they want to eat and feed their families.

We are also very concerned with the presence of GMO products and crops grown and prepared in the state of Hawai'i and would encourage the legislature to adopt similar standards and practices concerning crops and products produced here in Hawai'i.

Mahalo,

A handwritten signature in black ink, appearing to read 'L. Robbins', written in a cursive style.

Loring Robbins

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:06 PM
To: AGL Testimony
Cc: kumukoa@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB174.docx

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
William Belcher	Individual	Support	No

Comments:

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Jon D. Petersen

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, and HTH,

Foods containing biotech ingredients are compositionally the same as conventionally produced foods. Distinguishing them with a special label would mislead consumers by falsely implying they are different. The U.S. Food and Drug Administration has consistently held that "there is no significant difference between foods produced using bio-engineering, as a class, and their conventional counterparts". Consumers who prefer to purchase food products that don't contain any biotechnology-derived ingredients can already choose foods labeled "Certified Organic", "Non GMO", or "GMO-Free". Mandatory labeling will increase food costs for the consumer.

Thank you for the opportunity to present testimony in support of science-based decision making.

Aloha, I would like to submit my support for the bill HB 174 HD2 that would ensure imported produce that is genetically modified be labeled. Very simply we consumers have a right to know and make informed decisions about the foods we eat. I am also in agreement with statements made by others such as:

- Consumers have a right to know whether the food they are eating is produced using genetic modification techniques
- GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.)
- There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern)
- Request that the bill be amended to include labeling of Hawaii produce that is GMO

Mahalo for your consideration,

Sandy Oku – Kaaawa, HI resident

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:08 AM
To: AGL Testimony
Cc: nrose@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Aloha.docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Rose	Individual	Oppose	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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Aloha, Hawaii lawmakers,

Please consider my voice when deciding about HB 174. I believe that food labeling requirements should be decided at a federal level, not at a state level. I'd much more prefer unity in labeling, than piecemeal labeling. These labeling requirements by the state would affect the prices that I pay for groceries, as well as impact prices for those who can least afford it, and not in a good way. We already pay a high price for groceries here; please vote "No" on HB 174 to keep our grocery prices from rising even more.

My name is Amber Holton. I am a mother, a nutrition enthusiast and the gatekeeper to all that is nourishing the bodies of my family. I am also a Rheumatoid Arthritis (RA) FIGHTER. Since the diagnosis of RA I have worked so hard to overcome this painful obstacle in my life. I take personal responsibility for my health everyday. One of the biggest ways I am able to do this is by knowing every ingredient that goes into my body. It became obvious that there were certain foods I needed to avoid to help me feel better. Being able to read food labels became my most powerful tool in protecting the health of myself, my son and the rest of my family. For the most part, labeling is clear. I avoid what I need to avoid and keep "fake food" out of the bodies of my family. Being able to read labels and have the knowledge and power to somewhat control my health, literally gave me quality of life!

Although I feel that GMO's are effecting the world's health in a negative way, I am not asking you to ban them today. As a mother, a nutrition enthusiast and a citizen of the world, I ask that you support HB174 HD2 and require that foods containing GMOs be labeled. The people should know exactly what it is they are eating. While there may be disagreement as to whether GMOs are dangerous, from my perspective, the lack of FDA testing on the effects of GMOs, the requirement in Europe that all GMOs be labeled, the scientific evidence that has been collected recently on long term effects and my own experience in feeling better once I stopped eating GMOs is sufficient to stop GMO's from being a part our diet.

There is a huge problem though for those that decide to avoid GMOs. It is complicated to do so because of the lack of labeling. The best ways to avoid GMOs are by eating all organic foods and by not eating any processed food, ever. Over 80% of all processed foods contain GMOs. In our household we avoid processed foods and all of our food is bought organic or grown in our backyard. Though that is a reality for us, it is not a reality for the average American consumer. It is not practical when looking at the current American diet and lifestyle, nor is organic food an option for everyone. Another way to avoid GMOs is to avoid any food with corn, soy, canola, and sugar. When I became empowered with the knowledge of label reading it became clear that avoiding GMO's in processed foods was nearly impossible. On top of processed foods being riddled with GMO corn, soy, canola & sugar it becomes even more difficult because GMOs hide in our food under so many different aliases. It can be extremely difficult to identify GMOs. It should be simple. The only way for it to be simple is to have the foods clearly labeled. Please support HB174 HD2. Thank you!

Thank you for your willingness to hold a hearing on GMO labeling bill HB 174.

I was born and raised in Hawaii kai, Hawaii is my home.

I am in support of HB 174. We are an island. We have to look out for each other and the land that supports us. Changing the genetic structure of the food we eat will affect the soils, the plants, and the animals that form Hawaii's unique and delicate ecosystem. In addition, GMO food impacts our human health. There is scientific evidence which shows that GMO food can be linked to growing instances of food allergies and other health issues. I support the labeling of GMO food.

We have the opportunity to be the first in the nation to take this step. Hawaii can lead the nation on this food issue.

Many of us are concerned about food. We should know what we are eating. Hawaii deserves this. I support the labeling of GMO food.

Thank you for allowing me to submit testimony in support of bill HB174.

Mahalo,
Stephanie Chang
District 17, Hawaii Kai

Testimony Submitted to the

SENATE COMMITTEE ON AGRICULTURE
Senator Clarence Nishihara, Chair

SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
Senator Rosalyn Baker, Chair

SENATE COMMITTEE ON HEALTH
Senator Josh Green, Chair

DATE: Thursday, March 21, 2013
TIME: 9:00 a.m.
PLACE: Room 229
State Capitol
415 South Beretania Street

by

Richard M. Manshardt, Professor
Department of Tropical Plant & Soil Sciences
College of Tropical Agriculture and Human Resources
University of Hawai'i at Mānoa

REGARDING **HB 174**, RELATING TO FOOD LABELING. Imposes labeling requirements and import restrictions on imported genetically engineered produce. Authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations.

My name is Richard Manshardt. I am a professor and plant geneticist in CTAHR at UH Manoa. I have 30 years of research and teaching experience in crop sciences at UH, including conventional crop breeding and development of virus-resistant, genetically engineered (GMO) papaya varieties for Hawaii growers. I am providing testimony on my own behalf, not officially presenting the position of CTAHR or UH on this bill.

I respectfully oppose HB 174.

This bill purports to give consumers “informed choice” with regard to foods produced from genetically modified organisms (GMOs). In my view, the bill emphasizes choice, rather than information, as it offers no valid reason for requiring a label to distinguish GMO foods from non-GMO foods. If mandated labeling is to have any value, there must be a logically defensible reason for it, based on scientifically evaluated data.

The reason that HB 174 fails to provide justification for a labeling requirement is simply that there is no valid evidence for a health or safety risk from GMO products. All currently commercialized GMO commodities have been extensively tested for safety by developers and reviewed and approved by three federal agencies (USDA, EPA, FDA). In the specific case of the virus-disease-resistant Hawaiian papayas, with which I am personally familiar, no harmful environmental, agricultural, or human health issues were found in seven years of testing during development or fourteen years of production after commercial release, involving more than 250 million pounds of GMO fruit. These findings are substantiated by many professional and scientific organizations (including the American Medical Association and U.S. National Academy of Sciences), which have endorsed the evidence that GMO crops are no riskier than their non-GMO counterparts.

I think this bill is based on groundless fears promoted, in part, by anti-GMO activists and certain marketers of organic products, who profit from public distrust of the safety of conventional agricultural products. Organic foods are defined as non-GMO in the National Organic Standards, and are therefore the default choice for consumers spooked by the barrage of negative disinformation about conventionally produced and GMO foods.

The implementation of HB 174 would have other detrimental effects besides promulgating disinformation. There will be a considerable cost for producers to maintain separate food chains for non-GMO and GMO products, as well as for the State, which will be saddled with the issue of monitoring and enforcement. The dollar amount aside, any cost associated with a pointless label is too much. The issue of “choice” is an illusion, when there is no valid basis for a distinction. Furthermore, requiring labels that have no bearing on the nutritional quality or safety of the product opens the door to a host of special interests with similarly irrelevant messages to promote.

For the reasons above, I suggest that legislators **deny passage** of HB 174.

Testimony against HB174 GMO Food Labeling Bill
Hearing Date: March 21, 2013 9:00-11:00

Dear Senators Nishihara, Kouchi, Baker, Galuteria, and Green,

The anti-GMO factions will have you believing that there is a great amount of fear and unknown consequences of eating foods derived from GMO sources. They will bombard you with their studies and grotesque photos of tumor-laden rats supposedly from eating genetically engineered Bt corn. Groups supporting these activists will also stand in protest near the Kunia fields wearing masks to supposedly protect them from the toxic sprays and pesticides but then wear tank tops and shorts. I have even received the very study from a legislator, Mike Gabbard, of the rats with cancer as proof of the dangers of GMO foods as well as the purported "science." There are many videos on YouTube even by groups such as Greenpeace and EarthJustice of the dangers of the "toxins" being "dumped" into our aia by the seed companies. What do all of these have in common? Basically, it is all propaganda based on false information to create doubt and fear among the ignorant masses who have no idea even what a gene is, let alone anything about why science and legislation in the US has not led to labeling to begin with.

The very study by Seralini, that supposedly proved that GMO corn causes cancer, has been found to be flawed by much of the science world for several reasons that the anti-GMO factions will never disclose. The truth is that he used rats already prone to spontaneous tumors, there were a very small sample, no good set up of the control group with proper measurement of the amount being fed to both groups, as well as questionable statistical measurements. For the type of study he was attempting to achieve, he used a small sample of only 10 rats, when the amount considered valid for such studies is around 50 subjects. He also had done prior studies for anti-biotech groups like Greenpeace prior.¹ Other questionable tactics he used was having journalists sign a non-disclosure agreement to not share the study for outside review by consultants, which is normally done in science media prior to publishing. There was even a fine if the disclosure was not followed of a million euros. Prudent journalists refused to sign the NDA, while unscrupulous ones accepted it and released the findings.² Eventually, when the study was released and reviewed, the scientific world found multiple flaws and it was quickly found that the results were inconclusive

1

http://www.slate.com/articles/health_and_science/science/2012/09/are_gmo_foods_safe_opponents_are_skewing_the_science_to_scare_people.html

² <http://www.nature.com/news/hyped-gm-maize-study-faces-growing-scrutiny-1.11566>

by the European Food Safety Authority, an independent food safety organization.³ The EFSA allowed him the opportunity to provide the raw data for better analysis that he refused to disclose to this very day.⁴

The raucous of the anti-GMO movement will claim over and over that they "have the right to know," which is a vague and quite arrogant demand to know that "their" food is GMO or not. This essentially breaks down to the questioning the very science that has proven there is not significant difference between a conventionally grown food or an organic one or one derived by genetic engineering. The nutritional studies of organic vs. conventional has not been able to find significant differences in the food items either. The only line of pushing their agenda is now attacking the supposedly "unknown and untested science," which is complete false as the US has had a strong incorporation of science regarding the testing and safety of GMO foods from the initial development of it to now.⁵ Europe and other countries have not had much of their policies based in science until the event of Mad Cow Disease and the AIDS blood contamination issue in France, which changed their regulation to being more risk adverse and science based according to the Council for Foreign Relations case study of policy differences.

The last and only resort that the anti-biotech and anti-GMO factions can now campaign on is that the biotech industry is "evil" and "full of corporate greed." They will portray companies such as Monsanto, Dupont, and Syngenta, as evil, almost turning this into a religious type of crusade and inciting more and more uninformed people to join it without any real basis or evidence of dangers other than pictures and protestors in hazmat suits or masks. Those groups will then criticize Kamehameha Schools for leasing the land to these companies without good evidence as to why they shouldn't be doing so. Only claims that the water is being poisoned and filled with toxins with no hard evidence to back these claims at all.

The anti-GMO groups will also use the claim that there is "toxic" pesticides and herbicides being used on crops and state that sustainable organic food is much more superior. What they fail to disclose is that even organic crops use some form of pesticide or herbicide to treat their crops also. Just because it may be naturally derived does not mean it is inherently less dangerous. A good example is the use of copper in organic crops that is safe for humans but builds up in the environment and can become toxic to worms and plants.⁶ Also, naturally derived pesticides may have to be applied at much higher dosages than synthetic ones

³ <http://www.efsa.europa.eu/en/aboutefsa.htm>

⁴ <http://www.efsa.europa.eu/en/efsajournal/pub/2910.htm>

⁵ <http://www.cfr.org/genetically-modified-organisms/regulation-gmos-europe-united-states-case-study-contemporary-european-regulatory-politics/p8688>

⁶ <http://www.npr.org/blogs/health/2011/06/18/137249264/organic-pesticides-not-an-oxymoron>

also to get the same effect, which is rarely discussed in organic and sustainable food websites or forums.⁷

To create and enforce such a law to label foods that are GMO based on the anti-GMO campaigns reasoning and methods should not be allowed in our state of Hawaii. Laws should be based on the valid and reliable scientific evidence to protect consumers, not relying on fear tactics and propaganda. I'm still waiting to see valid studies that are replicated to prove their claims which none of the anti-GMO "scientists" can do to this day. To allow yourselves as our leaders to cave to the emotional and fear tactics being utilized by groups such as Babes Against Biotech, Greenpeace, Sierra Club, and Earthjustice to make law and is truly absurd. To promote a law based solely on the consumers' right to know and ignoring the evidence collected for over 20 years by respected scientists around the world is allowing corrupted science and pseudoscience to triumph as sound evidence is irresponsible to your constituents. The people of Hawaii deserve to have sound laws that promote good science and education on healthy eating, not fear mongering and taking advantage of ignorance.

When the anti-GMO supporters are faced with the real facts about the issues, and they can no longer make a valid statement, they will easily attack the writer as being a lobbyist, a troll, a shill, or must be paid by a GMO company. It is very sad that the reasonable discussion must end with name-calling or accusations rather than on facts regarding the real issue of GMOs. I have learned the science of genetic engineering and know why it is safe. I urge you to use sound evidence to promote responsible and reasonable laws in our state. Good laws should be passed in this state, not ones based on propaganda and groups spreading fear or using emotional tactics.

Sincerely,

Joni Kamiya, MS

⁷ <http://blogs.scientificamerican.com/science-sushi/2011/07/18/mythbusting-101-organic-farming-conventional-agriculture/>

Gary Fourie
Email: gary.fourie@pioneer.com

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, an HTH,

I am dealing with GMO since 1998 to current, working during all production stages in the fields, saw many insect species, wild life, chickens, pigs and pigeons and eating green corn myself from these products. Till today I have no negative reaction after dealing for such a long time with it, neither have I witnessed any other creatures feeding on the corn have any negative reaction, instead, they are thriving and multiplying in large numbers!!!

Thank you for the opportunity to present testimony in support of science-based decision making.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:56 AM
To: AGL Testimony
Cc: cwsche@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Curtis	Monsanto	Oppose	No

Comments:

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I am writing this to encourage you to vote NO on HB 174.

There should not be a debate any more about the safety of GMOs there has been over 600 peer reviewed studies by scientific authorities such as the National Academies of Science, the United Nations food and Agriculture Organization, the World Health Organization, the American Medical Association, and the American Association for the Advancement of Science. There has been 20 years of medical research and scientific studies saying that it is just as safe as food grown in your backyard. For me arguing about this is like talking to someone who believes the Earth is flat. People have the right to believe whatever they want but legislation should be selected on what are facts and not propaganda.

Thanks for your time,
Jack Cornell

Testimony for HB174

Aloha,

My name is Paul Izak and I am in favor of HB174. I am a small business owner and steward of the land. I have been building back yard Organic Vegetable gardens in the communities for 6 years. I believe we must label GMO's because it is our right to know if our food has been "Modified" on a molecular level. This awareness is for our health and for the health of the Hawaiian residents and will be a positive example for the other U.S states and the World.

As an organic grower I have developed a keen sense to chemicals and GMO's. I do not consume any GMO products and avoid chemicals at all costs. The times I have been around the use of chemicals or eaten GMO food my body has physically responded in negative ways. I know the taste of organic food and the smell of soil that is alive and rich with living organisms. GMO crops and GMO foods do not have same taste, smell or vibration. In fact I don't feel safe anywhere near GMO crops and foods. When your body is healthy and in tune with nature you become very sensitive to this. However the majority of U.S Citizens are consuming GMO products on a regular basis and they don't even know it. They are developing cancers, ulcers, diabetes, gaining weight, migraines.....the list goes on and on. It's time we start acknowledging health starts with our food. By labeling GMO's the community at large will be more capable to make a positive decision for their own health.

Evidence has proven that GMO's are harmful to our health and are not natural. We have had the industrial green revolution and it's time we learn from it. We see now that the use of Pesticides and herbicides that GMO companies require and manufacture are destroying our environment. I do not want to support such destructive actions. What I do support is progressive and positive solutions that work with nature. Permaculture, which got a lot of it's idea's from the Hawaiians Ahupua'a system, is a positive solution that I will support and stand by till the end.

GMO companies have a strong hold on Hawaii's land and have financially invested a great amount. However it's time we look past these money issues. This is for our health, our children's health, and the health of all of Hawaii. We will find other ways to become economically stable. We are starting to see that GMO companies agricultural practices no longer serve for the higher good of the people or this land. If it is not time for them to leave then so be it, the voices of the people will not stop till there is an end to GMO's. But it is time to label the products so that we can know. I think this is a justified, moral and humane request.

Once the awareness of the Harms of GMO's has spread you will be voting that GMO's have no place in Hawaii. We must make way for new innovative, environmentally friendly, and health conscious ways of producing food. There is so much to learn from this land and it is time we listen to her cries. Closing the door to the harmful practices of GMO companies will open the doors to those people who truly want to Malama (take care of) this land with practices that are sustained to support future generations. I have faith that our self sustainable dreams are now manifesting and if we must take small steps our greatest solution now is the passing of HB174 and Labeling all GMO products. Mahalo.

The biotech seed industry is one of the best things to happen to Kauai by providing good jobs, and playing an important part in feeding and fueling the world. Attempts to damage the industry with HB 174 would be a huge mistake. While proponents claim that HB 174 is only about providing a choice for consumers, in reality it is an attempt to scare consumers and persuade them to purchase other products such as organic. The reality is that a choice already exists! If consumers wish to not buy GMO's, they can purchase organic food. As far as selecting between gmo and conventional however, every legitimate study has shown that there is no difference between the two, so labeling one as GMO would be pointless and misleading, given that there are no differences.

It is extremely important for our government to set up laws based on sound science, and not be misled by emotional activists. If HB 174 is enacted, it will be based 100% on the emotions and fears of the uninformed. Please do the right thing and base your vote on science, which tells us that we've been eating GMO food for almost 20 years without a single documented illness from it. The biotech industry is already among the most heavily regulated in the world, and each new product goes through years and years of research to prove its safety. With numerous regulations and proven studies in place already, why exactly would we suddenly want to label these proven products with something that scares people from buying it?

On the west side of Kauai where I reside, residents and businesses would be crippled if the seed industry were to suffer. While HB 174 is only about food labeling, any reasonable person knows that it's the first step in a long list of things that anti-gmo activists wish to enact in order to cripple the biotech seed industry. Please allow us to continue providing good jobs, and helping to feed and fuel the world, and vote NO on HB 174.

Lance Atkins

Testimony in Support of the HB 174

GMO Labeling is NOT Anti-GMO, but rather Pro-Consumer. We are what we eat. We, residents of the State of Hawaii, are entitled to information on what we and our children eat. Some argue that the costs of labeling would hinder the availability of the food product, but how about the costs of eating without knowing what it is? The effects of food consumption on human body are not always readily ascertainable. Making a conscious decision to take the risk and willingly bear the costs is one thing, but dealing with the consequence of eating something that you know nothing about is something that can be avoided with proper legislative action. I respectfully submit this testimony in support of the HB 174.

March 20, 2013

Strong Support HB174

Senate Agriculture, Consumer Protection and Health Committees

In Strong Support of HB174, HD2 with amendments

03/21/13 9:00 AM Room 229

Aloha Senators~

I coordinate for GMO Free Maui, GMO Free Oahu and GMO Free Big Island. Within these three groups I represent approx 3000 people with this testimony.

Mahalo for your attention and willingness to hear this bill. I realize you have received many emails and phone calls to support GMO Labeling.

We suggest that the committee(s) **amend HB174 HD2 in three ways.**

1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174.

2) We are also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers.

3) We also recommend that Section 9 be amended to take effect 1 July 2014.

There are **countless studies demonstrating the harm of GM food.** I agree with Dr. Lorrin Pang with the Maui Health Dpt. who expresses how imperative the **precautionary principle** is in relation to GMO food. With over 30 countries REQUIRING LABELING and numerous with outright BANS how could you not support Labeling for the safety of you, your family and all people. **WE ALL HAVE THE RIGHT TO KNOW** our food has be GENETICALLY MODIFIED. For me it's common sense.

Please see the 2 links I've provide below~

Mahalo for your support of HB174~You know in your heart and mind it's the right thing!

Blessings~
Courtney Bruch
808.283.6837
Maui

TOP FIVE GMO CONCERNS

<http://gmoinside.org/top-5-gmo-concerns/>

"There's no consumer benefit to a genetically modified organism [GMO], says Jeffrey Smith, executive director of the nonprofit Institute for Responsible Technology. "They're not like extra salt or sugar, which are under attack for health reasons but provide taste. GMOs are simply soaked in poison. ... No one is clamoring for a daily dose."

But few people clamor to avoid them, either, mainly because the biotech industry has put millions into ensuring you don't know what's in your food and what it can do. But GMOs present real risks—to our health, to the environment, and to farmers around the world.

THE RISK TO HUMAN HEALTH

More and more studies point to the idea that there's grave cause for concern about the health effects of consuming GMOs, including **food allergies, irritable bowels, organ damage**, and more. Read more ...

Click through to longer version:

Today, 94 percent of the soybeans and 72 percent of the corn grown in the US are genetically engineered to be "Roundup Ready," or able to withstand Monsanto's Roundup herbicide or its generic form, glyphosate. While Monsanto initially marketed Roundup as being "safer than table salt," several studies have pointed to health risks. A 2008 study in Sweden linked Roundup exposure to **non-Hodgkin's lymphoma**. A 2007 study in Ecuador found a higher degree of **DNA damage** in a population that had been aerially sprayed. DNA damage can ultimately lead to cancer or **birth defects**. A 2003 study of tadpoles exposed to Roundup in Argentina found a higher incidence of skull, eye, and tail abnormalities. Corresponding to that study, a 2009 study in Paraguay found that women exposed to Roundup during pregnancy were more likely to give birth to **babies with skull and brain abnormalities**.

As for the GMO crops themselves, there's evidence that the new substances engineered into some **GMO foods** can **mimic potent, potentially life-threatening allergens**. So basically, we're introducing new, hidden allergens into foods that will be much more difficult to pinpoint than a standard food allergy, making them deadlier than the average peanut or seafood allergy.

In addition, new research points to the possibility that GMO foods could **damage the gut**. Bt corn, for example, introduces a protein that pokes holes in the gut of common pests, killing them. While Big Biotech claims that humans won't experience the same kind of damage, studies out of Cuba and Mexico have found that certain Bt crops do poke holes in the guts of mice. And Dr. Gilles-Eric Seralini from the University of Caen in France re-analyzed 17 studies in 2011 and again found statistically significant occurrences of these effects, in addition to liver and kidney damage in rats.

Could this kind of damage extend to humans? Researchers say more studies are needed, but the possibility is strong enough that Green America recommends exercising precaution and avoiding GMO foods whenever possible.

THE RISK TO THE ENVIRONMENT

Seventy-two percent of US GMO crops are engineered to tolerate a certain type of herbicide. But the weeds that these herbicides used to kill are coming back bigger and stronger, creating herbicide-resistant "superweeds" that require greater quantities of more toxic pesticides to eradicate. Read more...

Monsanto's 10 most misleading talking points on GMO labeling

<http://grist.org/food/monsantos-10-most-misleading-talking-points-on-gmo-labeling/>

Dear Sirs,

March 20, 2013

Dear Senators,

I'm writing to support GMO labeling bill HB174 HD2.

I have a right to clearly identify and to be able to choose the quality of the food that I ingest. Hiding the truth from me is the same thing as taking away that right.

I'm requesting only two amendments to HB174HD2:

- Labeling of local GMO produce be included
- The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether or not they are purchasing GMO

Please support this crucial and timely legislation.

Thank you for your time,

Chelsea Aaron

chelseafalk@yahoo.com

808-359-9191

1051 Front St.

Lahaina, HI 96761

Testimony in Opposition to HB 174

John McHugh
95-1048 Kelakela St.
Mililani, Hawai'i 96789

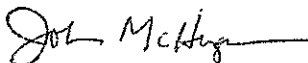
Aloha Legislators,

I am writing in opposition to HB 174, *Relating to Food Labeling*. As an ag professional working in agriculture for the last 40 years as a farmer, scientist, and consultant in Hawaii I find this bill to be a stunning waste of time and valuable resources. What could possibly be accomplished by requiring GMO labeling for produce coming into the State of Hawaii? There is virtually none that I know of currently on the produce counters of supermarkets and in the refrigerators of restaurants. What exactly is this bill trying to do? Is this to set a precedent for additional future GMO labeling to be expanded to processed and packaged foods? Even if that was/is the case there is an option which already exists for those who have concern regarding the possibility that GMO in food might create health issue and that option is called certified organically grown and/or manufactured.

It seems as if every time someone doesn't like a situation that the reaction is that "There ought to be a law!" I don't think that people understand that when a new law is added it expands the size of government which requires scarce resources to be allocated towards enforcement of the law. If enforcement does not occur then passing the law is largely a waste of time and resources. I understand that this is an emotionally charged issue but people are not thinking clearly. They can exercise their personal choice by using their dollars to purchase certified organic products. If enough people do that then that will certainly get the attention of farmers and food manufacturers who could then produce products that contain no GMO food crops and label their products as being GMO free.

So please, please, please maintain a rational and logical reasoning when considering this bill. It is not needed because options already exist. We do not need to have a law to "protect" people from evil GMO food. I think that over time it will be determined whether GMO food consumption is positively or negatively impacting human health. We have had these products in our food supply for 20 years with no reputable link associated with health impacts (positive or negative) and people can buy organic if they are genuinely concerned.

Thank you for your time and consideration.



John McHugh
(808) 341-0230

HB-174 Testimony

To The Hawaii State Legislature,

I oppose this measure for labeling on the grounds that this would be a waste of time and money for the vendors that it affects. There has been no evidence that GMO is harmful to humans, any information that is against this is here say and misinformation. This will drive up cost in an economy that is struggling and everyone is just making ends meet barely. The science is on the side of the GMO for the fact that the FDA, USDA approve of GMO and say it's safe for consumption and no one has ever died or got sick from it. So I stand on my decision to oppose this measure in full confidence of GMO safety.

Sincerely,

Robert Gandia

Concerned citizen for the ethical and moral

Testimony OPPOSING HB174
Relating to Food Labeling

Aloha,

I strongly oppose HB174

More than 16 years of research by some of the most credible scientific organizations in the world - The American Medical Association, the European Union Commission, the Swiss National Science Foundation, and the World Health Organization - have all confirmed that there is "no danger" to human health or the environment in the use of genetically engineered crops.

Since government mandated labeling by the US Food and Drug Administration is based solely on the health and safety of the product, there is simply no scientific justification to label GMO foods. Appropriately - the FDA retains responsibility for labeling because they have the resources and expertise to properly implement costly changes in US food labeling policies.

During these tough economic times with competing priorities and budget restrictions, it is fiscally irresponsible for the counties or even states to duplicate what is already regulated by the federal government.

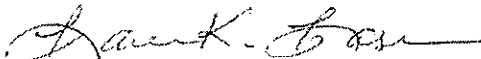
According to a recent study by Colorado State University, the cost of mandatory labeling could be as high as 10 percent of a consumer's annual food bill.

For the people who oppose GMO foods - for lifestyle, ideological or even religious beliefs - they can continue to purchase premium priced organically labeled or all-natural foods found at most grocery stores today which affirmatively addresses their "right to know" concerns.

Ironically - after analyzing forty years of data to determine whether organic foods provide additional health benefits, Stanford University scientists recently concluded that organic fruits and vegetables are generally no more nutritious or healthy than their conventionally-grown counterparts despite claims by proponents and growers.

For those of us who are struggling to put food on the table, we can be assured that the majority of food grown conventionally or genetically engineered will remain affordable because the unnecessary and costly labeling mandates whose only purpose is to stigmatize our food choices will be avoided.

Labeling GM foods would mean added costs for Hawaii's consumers. Our state already leads the nation in the price of food - up to 40 percent higher on some products. Labeling will drive up costs even further.



Lawrence K. Lasua
P.O. Box 544
Kaunakakai, HI 96748

I fully support labeling. It is very difficult to read labels as it is in the supermarkets. I think the burden of cost for labeling should be on Monsanto who rapes our planet to make millions of dollars and pollute our environment like nothing else before in the name of feeding starving people. Organic and traditional farmers should not have to bear the expense of labeling & people have to stand up for their right to make a choice. Don't let Monsanto, Pioneer, etc. kill our organic farming sector with their ill gotten gains.

To the Honorable Senators of the Agriculture, Consumer Protection and Health Committees,

Aloha. I am testifying with my strongest support of House Bill 174 HD2, for the labeling of GMO produce. However, I suggest the following amendments.

1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174.

2) I am also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. I suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers.

3) I also recommend that Section 9 be amended to take effect 1 July 2014.

Mahalo for considering this hugely important bill for Hawai'i's people.

Sincerely,

Susan K. Antonio
Maui

Dear Sirs,

March 20, 2013

Dear Senators,

I'm writing to support GMO labeling bill HB174 HD2.

I have a right to clearly identify and to be able to choose the quality of the food that I, and my family, ingest. Hiding the truth from me and my family is the same thing as taking away that right.

I'm requesting only two amendments to HB174HD2:

- Labeling of local GMO produce be included
- The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether or not they are purchasing GMO

Please support this crucial and timely legislation.

Thank you for your time,

Augustine Costantino
808-757-0795
prolific777@gmail.com
1057 Front St.
Lahaina, HI 96761

Dear Sirs,

March 20, 2013

Dear Senators,

I'm writing to support GMO labeling bill HB174 HD2.

I have a right to clearly identify and to be able to choose the quality of the food that my family and I ingest. Hiding the truth from us is the same thing as taking away that right.

I'm requesting only two amendments to HB174HD2:

- Labeling of local GMO produce be included
- The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether or not they are purchasing GMO

Please support this crucial and timely legislation.

Thank you for your time,

Jes Claydon

Mauiclaydons@hotmail.com

808-214-7467

1670 Ainakea Rd.

Lahaina, HI 96761

Opposition to bill HB174

People already have the option of buying GMO free foods from producers who farm organically or choose to self-label. You see this in the stores now.

Common grocery items like cereal would be affected because they contain sugar beets, soybeans and corn. These are the most common GMO products. By the time they are processed studies have shown that they are identical to non-GMO products.

This dialogue should center on science. There is no evidence crops containing GMO's pose any risk. Farmers have been planting GMO crops since 1996 as a way of increasing yields while reducing chemical use. This is a good thing.

This is way too early to legislate something that is a only a perceived threat by some.

March 20, 2013

Senators,

I'm writing to support GMO labeling bill HB174 HD2.

I have a right to clearly identify and to be able to choose the quality of the food that I, and my family, ingest. Hiding the truth from me and my family is the same thing as taking away that right.

I'm requesting only two amendments to HB174HD2:

- Labeling of local GMO produce be included
- The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether or not they are purchasing GMO

Please support this crucial and timely legislation.

Thank you for your time,

Emerson Timmins
808-250-8876
emersontimmins@hotmail.com
2180 Vineyard St
Wailuku Hi 96793

Sarah Styan, PhD
P.O. Box 402
Hanapepe, HI 96716

HB 174 HD2, Relating to Food Labeling

Senate Committee on Agriculture, Health and Commerce and Consumer Protection

March 21, 2013

Room 229, at 9am

Position: OPPOSED

Chairs Nishihara, Baker , and Green, Vice Chairs Kouchi and Galuteria; and members of the Senate Committees on ARG, CPN and HTH,

I strongly OPPOSE HB174

1. State based labeling policies will increase the cost of food and increase demands on farmers and the food supply chain.
2. State based labeling will be difficult to support/enforce nationally, especially for such a relatively small market like Hawaii.
3. GMO foods are safe
4. Consumers already have a choice, they can purchase GMO-Free or certified organic products.

Thank you for the opportunity to provide testimony in support of science-based decision making.

Zulliany Noble

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, an HTH,

In my opinion, the approval of this bill will not be beneficial for the people of Hawaii as it is expected to be. This will represent an inevitable cost increase on the foods we buy and consume on a daily basis and which around 80% of them contain some type GM ingredients. People have to question themselves if they really want to increase the price of groceries we buy just to have one more advertisement on the labels about ingredients that are safe to eat, we have been eating them for many years and provides more food for the world. Also, will this label make people really give up on the good quality, brand name and healthy products they are used to buy. This bill's purpose should be instead to educate people on the amount of products sold and consume that have GMO in their ingredients and are safe and healthy for everyone.

I also think this could have a very negative effect from manufacturers and distributors towards Hawaii as it might not be economically feasible for them to invest on such label just to distribute their product to Hawaii. And subsequently will trigger a shortage of goods for our state.

Thank you for the opportunity to present testimony in support of science-based decision making.

I believe GMO labeling is unnecessary and will add additional cost to food products purchased by local Hawaiians. GMO products – **food** (oils, syrups, livestock, soy protein, Etc.), **feed** and **fuel** + cotton – are embedded within our culture. Labeling these products would be time consuming and costly to implement. I support farming and encourage all types of methods (GMO, Organic, Etc.) as long as farmers are outstanding stewards of the land. I have lived here in Hawaii for 4.5 years now but I lived my first 33 years in Iowa. I support ethical and morally correct farming procedures and I believe the seed industry here in Hawaii at times receive incorrect stereotyping by the local media. The products we develop here are helping to alleviate world hunger. One step at a time, the seed industry – local Hawaiians - is reducing this global problem.

At this time, I must oppose the HB 174.

March 20, 2013

Dear Senators:

I would like to respectfully submit my testimony regarding HB 174.

I am strongly opposed to this bill for two main reasons.

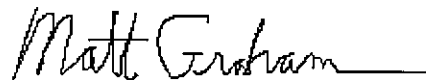
First, I believe it will unnecessarily end up costing consumers more money in two ways. I believe that this bill will, without a doubt, cost taxpayers more of their hard earned money. I also believe this bill will cause food prices to rise. I think I am one of many in the State of Hawaii who feel that every penny of income matters, both to me and my family. The additional costs that this bill would create for my family are simply unbearable.

Second, I believe this bill does not provide a great service to the consumer for two reasons. Research shows that genetically modified foods pose no food safety threats to the consumer. In fact, it's been shown that they are no less nutritious than their organic counterparts. That said, should the consumer wish to purchase organic foods, there is already labeling in place that allows them to make that decision. I have nothing against a person's freedom to choose, but I certainly don't want to be paying more money for my food and taxes because of redundant labeling.

To all of the honorable members of the Senate Committees on Agriculture, Commerce and Consumer Protection, and Health, I thank you for taking the time to read my testimony and I sincerely hope that you make the right decision for the hard working families of Hawaii.

Mahalo.

Sincerley,

A handwritten signature in black ink that reads "Matt Graham" with a horizontal line extending to the right.

Matthew Ryan Graham

Bridget Napier

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, and HTH,

I am in opposition of this bill as I believe these labeling requirements will dampen the already complicated resources we have in Hawaii. Most of what Hawaii residents live off of is imported goods because of similar regulations passed over the years. I'd suggest thinking off hand how many products you get on a daily basis in the markets that may contain (at some point in process) GMO's and see roughly how many products you will be requiring to change packaging for sales in Hawaii. Hawaii is a relatively small market compared to the rest of the world that companies send their products to we may start setting Hawaii up for a more complicated future living with passing more bill with regulations such as this. We always hear testimony made that we want to make Hawaii a "Sustainable" Hawaii let's make that testimony a reality.

Thank you for the opportunity to present testimony in support of science-based decision making.

Joan Stohrer
Waialua

REGARDING HB 174 HD2, Relating to Food Labeling

Senate Committees on Agriculture, Health, and Commerce and Consumer Protection

March 21, 2013

Room 229, at 9:00 a.m.

Position: Strongly and vehemently opposed

TO: Chairs Nishihara, Baker, and Green

Vice Chairs Kouchi and Galuteria

Members of the Senate Committees on Agriculture, Commerce and Consumer Protection, and Health

I have been reading many comments, letters and op-ed pieces in the Star-Advertiser recently, many of them making vague and misleading statements about the safety of bioengineered food crops. It seems the reconsideration reported today that the Senate has about-faced and decided to hold hearings on this bill is simply bowing to the loud outcry of a few groups that may have their own axes to grind.

The food crops under discussion have been exhaustively studied by many scientific and food-safety organizations over a period of decades and are more closely regulated than any other types of food, including organic food, which has been the source of food-borne illnesses like rat-lungworm disease (which has been fatal here in Hawaii) and salmonella. No illness or harm of any kind has ever been linked to bioengineered food ingredients.

Some of the objections voiced seem to be based on a fear of pesticides and not the food crops themselves. If people inform themselves more thoroughly, they would learn that food crops bioengineered to resist insects were created so less pesticides would have to be used to prevent crop damage. The farmers don't have to spray pesticides because the plants have been engineered so the bugs won't eat them.

Bioengineering plants have been produced over thousands of years of farming – it's called cross-breeding or hybridization, which has resulted in the highly-productive crops we enjoy today in the marketplace. I'm sure somewhere in history there were those farmers who thought hybridizing to improve yields was something far out and unnatural, and they may have tried to scare others with their fears, but I think everyone now believes that hybridization is an accepted part of crop production.

There has been so much misinformation promulgated around this issue, and if people took the time to read the studies and inform themselves instead of listening to the shrill voices of others whose motives may be questionable, we could have a more reasoned and rational discourse on this subject.

Thank you for the opportunity to present testimony in support of science-based, objective, rational legislation.

Mark Takemoto

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, an HTH,

I am opposed to this bill because it supports one segment of the agricultural industry without sound and factual backup information. On the surface it has been promoted as a right-to-know issue yet it instead relies and promotes falsehoods.

This legislation unfairly implies wrong doing, harming farmers who have been using techniques that have been proven safe by the federal government over decades of use and to the benefit of many.

Thank you for the opportunity to present testimony in support of fact based legislation and all types of agriculture not just selected ones.

Michael Nagel
18012 Oakhill Trail Ct.
Wildwood, MO 63005

The Hawaii State Legislature
Hawaii State Capitol
415 South Beretania Street
Honolulu, HI 96813

March 20, 2013

Dear Legislators:

I am writing in opposition to HB 174 which requires labeling of genetically modified foods. This measure would impose an unnecessary and costly burden to HDOA and the food industry while providing no consumer benefit.

This bill would require food companies to create new, potentially Hawaii specific labeling, at significant additional costs. These costs will be passed along to the consumer; a burden that the citizenship cannot bear in already strained economic times. Furthermore, this bill will place a new and unnecessary burden on the already strained HDOA, diverting resources from truly value added and necessary initiatives such as protecting the state's agricultural economy and ecology from foreign pests. All this would be done to address a need that does not exist. Although I recently left the islands the issue is significant to me as a lifelong agricultural professional, and out of concern for the friends I have left behind in the state.

Thank you for your time and representation, aloha.

Michael Nagel

Testimony for HB174

Aloha,

My name is Paul Izak and I am in favor of HB174. I am a small business owner and steward of the land. I have been building back yard Organic Vegetable gardens in the communities for 6 years. I believe we must label GMO's because it is our right to know if our food has been "Modified" on a molecular level. This awareness is for our health and for the health of the Hawaiian residents and will be a positive example for the other U.S states and the World.

As an organic grower I have developed a keen sense to chemicals and GMO's. I do not consume any GMO products and avoid chemicals at all costs. The times I have been around the use of chemicals or eaten GMO food my body has physically responded in negative ways. I know the taste of organic food and the smell of soil that is alive and rich with living organisms. GMO crops and GMO foods do not have the same taste, smell or vibration. In fact I don't feel safe anywhere near GMO crops and foods. When your body is healthy and in tune with nature you become very sensitive to this. However the majority of U.S Citizens are consuming GMO products on a regular basis and they don't even know it. They are developing cancers, ulcers, diabetes, gaining weight, migraines.....the list goes on and on. It's time we start acknowledging health starts with our food. By labeling GMO's the community at large will be more capable to make a positive decision for their own health.

Evidence has proven that GMO's are harmful to our health and are not natural. We have had the industrial green revolution and it's time we learn from it. We see now that the use of Pesticides and herbicides that GMO companies require and manufacture are destroying our environment. I do not want to support such destructive actions. What I do support is progressive and positive solutions that work with nature. Permaculture, which got a lot of its ideas from the Hawaiians Ahupua'a system, is a positive solution that I will support and stand by till the end.

GMO companies have a strong hold on Hawaii's land and have financially invested a great amount. However it's time we look past these money issues. This is for our health, our children's health, and the health of all of Hawaii. We will find other ways to become economically stable. We are starting to see that GMO companies agricultural practices no longer serve for the higher good of the people or this land. If it is not time for them to leave then so be it, the voices of the people will not stop till there is an end to GMO's. But it is time to label the products so that we can know. I think this is a justified, moral and humane request.

Once the awareness of the Harms of GMO's has spread you will be voting that GMO's have no place in Hawaii. We must make way for new innovative, environmentally friendly, and health conscious ways of producing food. There is so much to learn from this land and it is time we listen to her cries. Closing the door to the harmful practices of GMO companies will open the doors to those people who truly want to Malama (take care of) this land with practices that are sustained to support future generations. I have faith that our self sustainable dreams are now manifesting and if we must take small steps our greatest solution now is the passing of HB174 and Labeling all GMO products. Mahalo.

Testimony OPPOSING HB174
Relating to Food Labeling

Aloha ,

I strongly oppose HB174

More than 16 years of research by some of the most credible scientific organizations in the world - The American Medical Association, the European Union Commission, the Swiss National Science Foundation, and the World Health Organization - have all confirmed that there is "no danger" to human health or the environment in the use of genetically engineered crops.

Since government mandated labeling by the US Food and Drug Administration is based solely on the health and safety of the product, there is simply no scientific justification to label GMO foods. Appropriately – the FDA retains responsibility for labeling because they have the resources and expertise to properly implement costly changes in US food labeling policies.

During these tough economic times with competing priorities and budget restrictions, it is fiscally irresponsible for the counties or even states to duplicate what is already regulated by the federal government.

According to a recent study by Colorado State University, the cost of mandatory labeling could be as high as 10 percent of a consumer's annual food bill.

For the people who oppose GMO foods - for lifestyle, ideological or even religious beliefs - they can continue to purchase premium priced organically labeled or all-natural foods found at most grocery stores today which affirmatively addresses their "right to know" concerns.

Ironically - after analyzing forty years of data to determine whether organic foods provide additional health benefits, Stanford University scientists recently concluded that organic fruits and vegetables are generally no more nutritious or healthy than their conventionally-grown counterparts despite claims by proponents and growers.

For those of us who are struggling to put food on the table, we can be assured that the majority of food grown conventionally or genetically engineered will remain affordable because the unnecessary and costly labeling mandates whose only purpose is to stigmatize our food choices will be avoided.

Labeling GM foods would mean added costs for Hawaii's consumers. Our state already leads the nation in the price of food – up to 40 percent higher on some products. Labeling will drive up costs even further.

Sincerely,



Joan F. Lasua
P.O. Box 544
Kaunakakai, HI 96748

TESTIMONY SUPPORTING HB174

To: COMMITTEE ON AGRICULTURE

Senator Clarence K. Nishihara, Chair

Senator Ronald D. Kouchi, Vice Chair

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

Senator Rosalyn H. Baker, Chair

Senator Brickwood Galuteria, Vice Chair

COMMITTEE ON HEALTH

Senator Josh Green, Chair

Senator Rosalyn H. Baker, Vice Chair

RE: HB174 HD2

Measure Title: RELATING TO FOOD LABELING.

Report Title: Genetically Engineered Organisms; Produce; Labeling; Import

Current Referral: AGL/CPN/HTH, WAM

NOTICE OF HEARING

DATE: Thursday, March 21, 2013

TIME: 9:00am-11:00am

PLACE: Conference Room 229

State Capitol

415 South Beretania Street

Aloha,

‘O wau kēia ‘o Ku‘uipo Thomson a kāko‘o au iā HB174. Pono nā kānaka e ‘ike he aha kā lākou e ‘ai nei, inā he mea maika‘i a i ‘ole he ‘ino ia no ke kino. He lā‘au make ka GMO iā kākou, ‘a‘ole moakāka loa ka hopena i ke ola kino o nā kānaka, ke ola pono o ka ‘āina, a me ka pono o Hawai‘i nei. ‘A‘ole lā pono ka ho‘ā‘o ‘ana i ia mau kemikala ‘ino ma luna o mākou. Noi au e ho‘ololi ‘ia ka pila i hiki iā kākou ‘ike inā he GMO paha ka mea‘ai. Inā nō he GMO ka mea‘ai, ‘a‘ole au hoihoi iki e kū‘ai a kāko‘o i ia ‘ano. Mai no‘ono‘o i ka pili kālā, no‘ono‘o i ka pono o ko Hawai‘i.

Mahalo,

Ku‘uipo Thomson

My name is Ku‘uipo Thomson and I SUPPORT HB174. Consumers have a right to know whether the food they are eating is produced using genetic modification techniques. GMOs pose potential adverse environmental impacts, such as the loss of biodiversity, increased herbicide use, super-weeds, ect. There are unknown long-term health impacts of the consumption

of GMO foods, shown through many independent studies which show cause for concern. Please don't think about how much money these companies are paying you off, think about the future of Hawai'i. I also request that the bill be amended to include local GMO produce, and that the bill be clearly defined as necessary in order to prevent consumer confusion so that Hawai'i shoppers are clear about whether or not the produce they are purchasing is genetically engineered.

Mahalo,
Ku'uipo Thomson

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:52 PM
To: AGL Testimony
Cc: amsray@heartofhawaii.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Raymond J Foster	Individual	Oppose	No

Comments: I must respectfully ask...why are you wasting our time with this bad legislation? This bill has been deemed illegal and not defendable by the HI Attorney General's office. It is a simple blatant attempt to cause difficulty for legitimate businesses in HI. Please bring common sense and fact based decision making back to our legislative process. Kill this bill! RJF

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:17 PM
To: AGL Testimony
Cc: hcbitt@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: 2013 Testimony opposing HB 174.docx

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Harry Bittenbender	Individual	Oppose	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:19 PM
To: AGL Testimony
Cc: kalakairos@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Malian Lahey	Individual	Oppose	No
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Comments: GMOs have been shown to cause cancer in laboratory rats. They have been shown to release faulty, toxic, or fail to release exudates from their roots that should normally feed the soil microorganisms. They are dangerous!

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:35 PM
To: AGL Testimony
Cc: dustin.cole@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dustin Cole	Individual	Oppose	No

Comments: It is the Federal Government's responsibility to mandate labeling, not the State or County governments. The bill has been deemed illegal and not defensible by the HI Attorney General's office. This bill means legal troubles for supermarkets, food processors and shippers...a lawyer's delight. It is ridiculous to require out of state producer/shippers to follow different labeling rules than in state producers...and illegal. The sponsors of this bill are simply seeking any way possible to prejudice our industry, threatening our jobs! They can't pass legitimate legislation and have resorted to this. Additional labeling of food products, any added labeling, will increase costs to the consumer. Not so much for the label itself, but related legal fees, liability insurance costs, etc. Some food producers will decide not to ship to Hawaii in order to avoid the legal issues involved with label requirements.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:37 PM
To: AGL Testimony
Cc: dixoninhawaii@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dixon Smith	Individual	Oppose	No

Comments: • Consumers have a right to know what they are eating • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) • This is an important bill for Hawaii's food future. Please amend the Bill to include labeling of Hawaii produce that is GMO, or not.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:47 PM
To: AGL Testimony
Cc: michael.j.diamond@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Michael Diamond	Individual	Oppose	No
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Comments: This bill is bad policy, illegal and unconstitutional.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:52 PM
To: AGL Testimony
Cc: andreaca@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
ANDREA TALON	Individual	Oppose	No

Comments: Additional labeling of food products, any added labeling, will increase costs to the consumer. Not so much for the label itself, but related legal fees, liability insurance costs, etc. It is the Federal Government's responsibility to mandate labeling, not the State or County governments.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:54 PM
To: AGL Testimony
Cc: lunemori@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lauren Unemori	Individual	Oppose	No

Comments: Please oppose this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:09 PM
To: AGL Testimony
Cc: Rachelkattlove@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rachel Lauren	Individual	Comments Only	No

Comments: Labeling should be required for all food that use GMO ingredients. Mahalo for enforcing this idea. You won't regret it and neither will the future generations.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:12 PM
To: AGL Testimony
Cc: Jshabert@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Judith Shabert	Individual	Support	No

Comments: Inserting genetic material from one species into another, as is done with GMO, is bad enough. The more alarming aspect has to do with the amount of pesticides that are used on the growth fields. Now that weeds are becoming resistant to Roundup, pesticide with greater toxicity will be used. It is a escalating process with a very poor prognosis for our future.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:13 PM
To: AGL Testimony
Cc: 13mulisha@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Josiah Jurich	Individual	Support	No

Comments: I strongly support the labeling of foods containing GM products. And the banning of GMO experiments on Hawaii.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:16 PM
To: AGL Testimony
Cc: ltuan@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
tuan la	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:16 PM
To: AGL Testimony
Cc: janet721@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: TESTIMONY IN SUPPORT OF HB174 HD2.docx

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Edghill	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:16 PM
To: AGL Testimony
Cc: timorykoch99@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Timo	Individual	Support	No

Comments: Please support HB 174 and GMO labeling in Hawaii!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:17 PM
To: AGL Testimony
Cc: spindleart@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Adam Lang	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:18 PM
To: AGL Testimony
Cc: mariafahey@verizon.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maria Fahey	Individual	Support	No

Comments: Citizens have the right to know what they are eating. All food--imported and grown in Hawaii--should be labeled fully, including whether or not it contains genetically modified organisms. Labeling food does not prohibit anyone from eating the food who wants to eat it; labels give people the freedom to choose what to eat. Thank you.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:20 PM
To: AGL Testimony
Cc: Ashzz@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ashley Wilcox	Individual	Support	No

Comments: I want to know if products I am buying and consuming are genetically modified. Please give consumers the ability to determine what they are feeding themselves and their families. These products are sprayed with herbicides and this is not good for the land, the workers, or the consumers. We do not know what the consequences of GMOs are going to be on our health. Please amend the bill to include Hawaii produce for GMO labeling as well. Mahalo for caring for us as well as our environment.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:21 PM
To: AGL Testimony
Cc: ab4@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
amie buttke/stokes	Individual	Support	No

Comments: For the love of God! Labeling GMO's is the least you can do! Personally I want a ban on all GMO test crops here in Hawaii. My family and I live next door to Monsanto in Kihei, HI and we are getting sick from the chemical laden dirt that blows through our home. Enough already! Please hear this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:24 PM
To: AGL Testimony
Cc: striegelra@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ruth Ann Striegel	Individual	Support	No

Comments: Please, please vote to pass this bill so the people of Hawaii know when they are buying poisonous food! This affects the health of Hawaiians and tourists alike. Who will want to travel to Hawaii when they find out our food and water has been poisoned by the greed of chemical companies!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:25 PM
To: AGL Testimony
Cc: mmaitino@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maria Maitino	Individual	Support	No

Comments: I fully support HB174 and strongly request that this bill that imposes labeling requirements and import restrictions on imported genetically engineered produce be supported. For the health of the people of Hawaii, and the ability to make choices about what we feed our families, authorizing labeling of non-genetically engineered food and creating a private right of action to enjoin violations is critical. Let Hawaii be at the forefront of this growing issue in the USA!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:26 PM
To: AGL Testimony
Cc: sally_ann_flinn@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sally Ann Flinn	Individual	Comments Only	No

Comments: I am in the health profession and am very much concerned with the future health of our keikis. I fear the long-term health impact of genetically altered food, the increase use of herbicides and pesticides. We, the consumers should have the right to choose if we want to eat Non GMO or GMO foods. Label everything that is genetically altered, including seeds! Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:28 PM
To: AGL Testimony
Cc: mealaaloha@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Daniel Bishop	Individual	Support	No

Comments: We Have The Right to Know....

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:28 PM
To: AGL Testimony
Cc: arnoldkotler@aol.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Arnold Kotler	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: Vanessa Arakawa [vanessa.arakawa@gmail.com]
Sent: Tuesday, March 19, 2013 8:31 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: Bill HB 174 HD2

To whom it may concern,

I am requesting that bill HB 174 HD2 be amended to include labeling of Hawaii produce that is GMO. We, consumers, have the right to know what we are eating and if the products we purchase contain GMO. GMOs are harmful to the health of my family and myself as well as the environment.

Vanessa Arakawa

nishihara1 - Amanda

From: Ryan Arakawa [ryanarakawa0@gmail.com]
Sent: Tuesday, March 19, 2013 8:31 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: Bill HB 174 HD2

To whom it may concern,

I am requesting that bill HB 174 HD2 be amended to include labeling of Hawaii produce that is GMO. We, consumers, have the right to know what we are eating and if the products we purchase contain GMO. GMOs are harmful to the health of my family and myself as well as the environment.

Ryan Arakawa

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:31 PM
To: AGL Testimony
Cc: nsafa@post.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nari Safa	Individual	Support	No

Comments: I am very much into organic foods no chemicals no pesticides. It is nature's way of protecting the land and creating something that comes from the earth without genetic alteration. I fully support the organic farmers right to grow their crops.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:32 PM
To: AGL Testimony
Cc: jennerlee@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jenny willis	Individual	Support	No

Comments: We as a people have the right to know if our foods have been genetically modified. I support the labeling of such engineered foods, as we the people may have our right as to what foods we choose to consume. GMO foods are endangering the health of our people and our planet. It is critical that this labeling agenda passes.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:33 PM
To: AGL Testimony
Cc: Kumukahi77@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dea Rackley	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:38 PM
To: AGL Testimony
Cc: linda@bpacal.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Dear Representative.docx

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Linda Toms Barker	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:38 PM
To: AGL Testimony
Cc: cktorigoe@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Charles K. Torigoe	Individual	Support	No

Comments: As a person with a number of life threatening health issues, I am very concerned that GMOs contain chemicals that are detrimental to my continued well-being. I avoid GMOs entirely unless they are not identified. This is a case of NEED-TO-KNOW and nothing else. Thank you for hearing this bill and I ask for its passage with an amendment to include local labeling of GMOs.

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nishihara1 - Amanda

From: ELLE [living3113@hushmail.com]
Sent: Tuesday, March 19, 2013 8:09 PM
To: All Senators; AGL Testimony; HTHTestimony
Cc: Rep. Derek Kawakami; Rep. James Tokioka; Rep. Daynette Morikawa
Subject: Support GMO labeling and HB174

Categories: Red Category

We The PEOPLE of Kauai support GMO labeling and HB174.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:40 PM
To: AGL Testimony
Cc: rogerwalraven@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Roger Walraven	Individual	Support	No

Comments: I oppose the ignorance of not knowing what is in my food. You must label to protect the people and future of Hawaii.

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nishihara1 - Amanda

From: davidsher@juno.com
Sent: Tuesday, March 19, 2013 8:38 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: Re: HB 174

Aloha

I strongly support HB 174, the labeling of GMOs, and urge you to pass this bill with an amendment that also includes labeling of Hawaii produce that has GMOs.

We live in a Democracy that is founded on transparency and the People's Right to Know and choose. The GMO companies are trying to prevent consumers from their right to know what is in their food and choose what they want and do not want to eat. That is not only wrong it is not Democratic.

The GMO industry claim that labeling GMOs will exorbitantly raise food prices has been proven to be a lie. This kind of behavior unethical testimony makes we trust the industry even less and makes me want labeling even more because I now know that this industry cannot be trusted to be truthful about their products.

The GMO industry also claims that by labeling GMOs that it will mislead consumers that there is something wrong with GMOs. This is also a spurious claim. Just putting a label saying there are GMOs doesn't say anything bad or good about them, it just lets consumers know that they are in the food which is no different than saying the food contains sugar or artificial colors. Every other ingredient in food is labeled so consumers can decide if they want to eat the product or not, there is no reason why GMOs should get special treatment and not be labeled.

I urge you to pass this bill and support the Democratic process and the Peoples' Right to Know.

Mahalo,
Dave Mulinx
Kahaluu

Banks Forced to Forgive Credit Card Debt

See how much of your debt could be settled!

LowerMyBills.com

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:44 PM
To: AGL Testimony
Cc: bmurphy420@mail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brian Murphy	Individual	Support	No

Comments: We have the right to Know what is in or Food! How dare you support these major Corporation over the will of the People!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:47 PM
To: AGL Testimony
Cc: skyewhite@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Skye White	Individual	Support	No

Comments: HB 174 HD2 should not only label importing produce, but due to the fact that Mansanto has many farms under many names. With that said, there is a clear fact that Mansanto has donated to many on the council, legaslature, & state congress. People should come before the dollars that sway representatives ability to make the right decision that you know you should make. Know that good health & good politics good hand & hand. Let not your voice be muffled by a corporation whos employees are over the control of your family's land & food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:47 PM
To: AGL Testimony
Cc: soulsurfers@soulsurferskauai.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Mr. & Mrs. Joseph Pattillo	Individual	Support	No
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Comments: PLEASE support this bill! And PLEASE may it be effective SOON! We should have the choice! Not be guinea pigs!!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:53 PM
To: AGL Testimony
Cc: mauipeaceaction@earthlink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Mele Stokesberry	Individual	Support	No
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Comments: I support with the amendment to include all whole foods.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:06 PM
To: AGL Testimony
Cc: catherinemaurence@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
catherine maurice	Individual	Support	No

Comments: We should have the right to know if the foods we choose to consume are genetically modified. Its just simple education on what we decide to ingest. Its about education and honesty.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:09 PM
To: AGL Testimony
Cc: alex_kauai@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB 174 Testimony - Alexander Jordan Taylor White - Hilo - HI.txt

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Alexander Jordan Taylor White	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:10 PM
To: AGL Testimony
Cc: Abensley80@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Adam Bensley	Individual	Support	No
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Comments: I strongly support this bill. GMO's need to be labeled NOW. We have the right to know what we are eating and if we are being poisoned. Mahalo, Adam Bensley 1610 Wilhelmina Rise Honolulu, 96816

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:17 PM
To: AGL Testimony
Cc: claudiarice25@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
claudia rice	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:18 PM
To: AGL Testimony
Cc: madeliefste2002@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ilse Menger	Individual	Support	No

Comments: Modern science is surely fascinating and the pursuits of GMO by corporations are about money, profit and quick implementation - The rest is very well funded strategy to convince people these bio-mutations are good for us. Men believe they can now modify nature with money and power to manipulate the micro-biological world without any repercussions. If you truly knew what was being done in the laboratories to play with the genetic codes that are possibly billions of years old- You might understand there is no way to know what the long term implications are for the release of these experiments into the natural world. The Hopi Indians talk about this in their ancient prophecy. These people who have an ancient spiritual connection with the living consciousness of the Earth tell us there would be those who create new foods and animals and convince people this will be good for us - but this will eventually backfire as nature is too complex and bio-intelligent to allow the unnatural tinkering of cross-genetic manipulation and this will cause great difficulty with future generations. Unfortunately those greedy corporate intellectuals cannot see and do not care about the possibilities the terrible travesties their abomination will have on the grandchildren of the future, as long as they reach profit margins to satisfy their insatiable gluttony. The corporations have poisoned our land, air and water so the natural food crops can no longer sustain viable growth and maturing patterns to sustain the growing population with the modern unnatural practices of farming techniques. It would be far more beneficial (although maybe less profitable) to work with the natural world and grow healthy foods in healthy soils to feed the people of the world with new ways of local farming techniques that do work. Tinkering with genetic animals, releasing them into the natural world and eating them is an experiment on the very fabric of the entire eco-logical and bio-logical systems that make up life. Do you really think genetic scientists who get paid to produce a "prouct" for profit understand the intricate design and function of nature? Are you willing to give your body and the bodies of your children and childrens children to this experiment? This is the same corporate and scientific mentality that offered us DDT, agent orange, Thalidomide and countless other poisons that were designed to improve our lives. Whether you realize it or not you are being used as a guinea pig. You have a right to agree to that - but for those of us who value the natural world and the future of our children - this is seen as a crime against humanity that unfortunately will have no winners, but has the potential to create tremendous suffering for many generations to come. If you argue there is no danger from these corporate sponsored scientific accomplishments - you do not understand the fundamental living

nature of the evolutionary process of natural selection and bio-adaptation of the genetic codes of life.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:21 PM
To: AGL Testimony
Cc: illiebillie2003@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Taur Kiggins	Individual	Support	No
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Comments: As a citizen of this country, I have the right to know and choose what I eat. Foods containing GMOs are unsafe for consumption and owning patents on seeds by giant agricultural corporations is in my opinion unethical. The US is the only country in the Western world that has not required mandatory labeling of GMOs, the people of Europe have demanded it (GMO labeling is required in Europe) and the people of Hawaii demand it too! I demand to keep the Organic Standard pure which is not possible if foods are not labeled if they contain GMOs, this also includes feed for live-stock. I choose organic because I care for the environment and for the well-being of my children and fellow citizens, I DO NOT WANT TO CONSUME GMO FOODS! We demand GMO labeling!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:23 PM
To: AGL Testimony
Cc: rachaloha@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rachael Chisom	Individual	Support	No

Comments: SUPPORT HB 174-- EVICT MONSANTO HAWAII. RESPECT, NUTURE AND CARE FOR THE AINA!! GET MONSANTO OUT!! SAVE OUR KEIKI AND OUR PLANET FROM GMO'S!!

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:25 PM
To: AGL Testimony
Cc: landloper@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeff Vesce	Individual	Support	No

Comments: We need our representatives to speak for us, that is why they were elected. The people want to know if GMOs are in their food, so they have a choice, it's as simple as that.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:30 PM
To: AGL Testimony
Cc: aria406@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Angela Hughes	Individual	Support	No

Comments: It is crucial that we have transparency about our food, chemicals being used, and be able to track these genetically mutated plants. There is very concerning science regarding the health effects of chemicals sprayed heavily on GMO crops, as well as with the genetically altered foods. We have the potential to damage and contaminate the worldwide environment, including land and water with this stuff being pushed by multinational companies whose present power needs to be checked in a major way. Money does not equal what is right and should also not outweigh the rights of the people to choose for ourselves what is happening in our backyard and with the potential to travel 1,000's of miles thru wind and precipitation patterns. I personally know one farmer whose crop has been contaminated by GMO, and one farmer's relative who had land stolen in court for it being contaminated. This insanity has to stop somewhere- how about here and now? Our future generations rely on us to safeguard the place which they, our keiki and grandkids will inherit. Please hear our voices and choose with good conscience the best choice for all. Much mahalo for you time and kokua.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:40 PM
To: AGL Testimony
Cc: hawaiiannews@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Toni Auld Yardley	Individual	Comments Only	No

Comments: I am requesting two amendments: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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nishihara1 - Amanda

From: Troy Abraham [tabraham08@gmail.com]
Sent: Tuesday, March 19, 2013 6:41 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: HB 174 HD2

Categories: Red Category

I support mandatory GMO labeling in hawaii

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:42 PM
To: AGL Testimony
Cc: makenaf84@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Makena Fernandez	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:48 PM
To: AGL Testimony
Cc: laurenelaine721@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lauren Ampolos	Individual	Support	No

Comments: HB174 must be passed - it is important for the consumer to have full disclosure regarding the product that they are purchasing. There is absolutely no reason to not give the consumer the right to choose what kinds of products they want to support and what they want to put into their bodies. I am a well-educate individual and I even have difficulty identifying when genetically modified ingredients are in a product. It is very confusing for consumers when there is not a label that clearly states there are genetically modified ingredients in food. This is especially with new technology, and therefore ingredients being created and introduced into the market regularly. There is much controversy surrounding the science of genetically modified foods. I consider myself to be a scientist-practitioner, and I have looked to the literature myself in order to confirm what I intuitively know - that genetically modified foods are not conclusively safe. In fact, there is significant independent research that indicates there is reason to worry about regular consumption of these ingredients. Having genetically modified foods on the market without proper, long-term safety testing in humans is like putting a new pharmaceutical drug on the market without safety testing in humans, with countless animal studies indicating there is a cause for alarm, but saying it is safe and works, anyway. It just doesn't make sense. Personally, I was diagnosed with a chronic illness, and when I took these foods out of my diet, my broad range of symptoms miraculously disappeared. And, if I am ever accidentally exposed to these ingredients, my symptoms immediately return. It seems pretty clear to me that I have a reaction to these types of ingredients, and therefore, it is important for me to have the right to full disclosure regarding the products I am purchasing and consuming. It seems like a no-brainer to pass the labeling law. The independent people are clearly calling for action. There are approximately 4,000 people in Hawaii who have marched this month who are in favor of getting genetically modified farming completely off of the land - never mind just in support of labeling. Labeling is a necessary first step in allowing people the right to know and the right to choose. Unfortunately there seems to be difficulty in regard to how the bill is worded and I have heard the rumor that it will be unconstitutional to pass, and that if passed the state will be sued by biotechnology corporations. Thus, the bill should obviously be amended to include local genetically modified produce as to not violate the Commerce Clause. It seems that amendment would make more sense for offering full disclosure to the people as well. Hawaii is in a position to be a leader in biotechnology legislation, and to vote in favor of the rights of the people over the profits of big business. Honestly, why would companies want to patent

new technology, and then hide their new technology? Because the people don't want to buy it. More people are becoming aware daily, and the only way to allow them a fair chance to decide is to have clear labeling laws... And really, isn't that supposed to be the beauty of a free market - the right to choose which product you want to purchase? With the current independent research that exists today, the absolute least that can be done is labeling, and I hope that Hawaii allows that for its people.

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nishihara1 - Amanda

From: Patricia Tierney [hands@hialoha.net]
Sent: Tuesday, March 19, 2013 6:47 PM
To: AGL Testimony
Subject: the right to choose

Categories: Red Category

I'm writing to notify the Agriculture committee that I wish to have a choice on what kind of food I purchase in the state of Hawaii and this will include labeling of locally grown modified foods and imported foods.

I'm concerned and want you to express my concern with a NO vote to genetically modified foods (GMO) and a YES vote for labeling. Labeling for all ALL GMO foods that are imported into the state of Hawaii, or grown locally, so that i may exercise my freedom to choose the types of food I will support.

I want the right to choose. Please express this on Thursday March 21, 2013 at the senate committee hearing on HB 174 HD2

Mahalo, concerned citizen Patricia Tierney Hilo, Hi

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:48 PM
To: AGL Testimony
Cc: noenoebc@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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noenoe barney- campbell	Individual	Comments Only	No
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Comments: • Consumers have a right to know whether the food they are eating is produced using genetic modification techniques • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) • Request that the bill be amended to include labeling of Hawaii produce that is GMO

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:51 PM
To: AGL Testimony
Cc: marilynwick@pobox.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Marilyn Mick	Individual	Support	No
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Comments: I support this bill with some reservations, as we do not need to wait until 2112. This measure is not anti-GMO; it is pro-labeling. The people of Hawaii have a right to decide for themselves whether to label their foods, and have a right to know what they're eating.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:53 PM
To: AGL Testimony
Cc: cat_climber@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Catherine Leigh	Individual	Support	No

Comments: It is up to our elected officials to make sure our communities have the choice of purchasing GMO or non-GMO products. It is up to our elected officials to make companies be forthright with their product ingredients. By not giving the citizens of Hawaii that knowledge only allows the citizens to continue to live in ignorance. Please, make labeling mandatory for GMO products.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:53 PM
To: AGL Testimony
Cc: hawaiidogmom@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stephanie McLaughlin	Individual	Support	No

Comments: Please support this bill. The public has the right to know if the food they are buying has been genetically modified. As a Hawaii consumer, I want to know.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 6:55 PM
To: AGL Testimony
Cc: realmaui@aloha.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jane Sperr	Individual	Support	No

Comments: I urge the senate to support the labeling of GMOs It's our right to know what is in their food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:09 PM
To: AGL Testimony
Cc: silversurferkauai@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kaitlyn L McKee	Individual	Support	No

Comments: For goodness sake lable gmo's. It is the right thing to do and the majority of the public want foods that are or contain gmo's labeled. The people demand it.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:14 PM
To: AGL Testimony
Cc: fdemapan@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Frannie Demapan	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:15 PM
To: AGL Testimony
Cc: Mamakayti@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kayti Lathrop	Individual	Support	No

Comments: My family of 7 would like to know and have a choice about what we put into our bodies. Please require labeling for GMO foods. We are uninterested in being part of an experiment without having our permission. Thank you for listening and counting our voice!

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nishihara1 - Amanda

From: Claudia Shay [shayc001@hawaii.rr.com]
Sent: Tuesday, March 19, 2013 7:18 PM
To: AGL Testimony
Subject: Testimony in Support H.B. 174, HD 2

Categories: Red Category

To: Senator Clarence Nishihara, Chair
Senator Ronald Kouchi, Vice-Chair
Senate Committee on Agriculture

Senator Rosalyn Baker, Chair
Senator Brickwood Galuteria, Vice-Chair
Senate Committee on Commerce & Consumer Protection

Senator Josh Green, Chair
Senator Rosalyn Baker, Vice-Chair
Senate Committee on Health

From: Claudia Shay, M.P.H.

I am in support of H.B. 174, HD 2 restricting the importation of GMO food, and requiring the labeling of GMO food. Frankly I am outright opposed to any GMO food or crops in Hawaii because of the threat of cross fertilization destroying biodiversity. However, given that it has already invaded our state, it is imperative that we limit its importation. It is critical that all foods, products, drugs, etc have labeling. It is our right as American citizens to have labeling on anything we purchase, particularly what we ingest. GMO's pose adverse environmental impacts, and adverse long-term health impacts. Please place as many restrictions on GMO food as possible. Thank you.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:18 PM
To: AGL Testimony
Cc: A51jason@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Hallman	Individual	Comments Only	No

Comments: We have the right to know what we are eating. GMO's must be clearly labeled as such. Thank you.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:20 PM
To: AGL Testimony
Cc: motherearth03885@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jill Sexton	Individual	Support	No

Comments: Aloha, I firmly believe consumers have a right to know whether the food they are eating is produced using genetic modification techniques, GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (MANY independent studies show cause for concern) I request that the bill be amended to include labeling of Hawaii produce that is GMO. Thank You.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:21 PM
To: AGL Testimony
Cc: kevinrsexton@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kevin Sexton	Individual	Support	No

Comments: I believe consumers have a right to know whether the food they are eating is produced using genetic modification techniques, GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (MANY independent studies show cause for concern) I request that the bill be amended to include labeling of Hawaii produce that is GMO. Thanks for your time

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:23 PM
To: AGL Testimony
Cc: matthewshennett@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matthew Shennett	Individual	Comments Only	No

Comments: Consumers have a right to know whether the food they are eating is produced using genetic modification techniques, GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (MANY independent studies show cause for concern) I request that the bill be amended to include labeling of Hawaii produce that is GMO. Thanks in advance for your support regarding GMO transparency

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:29 PM
To: AGL Testimony
Cc: moontempledesigns@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shawna Mariah	Individual	Support	No

Comments: It is the best interest of ourselves, our children and all generations to label gmo's. It is the same for not allowing them to be grown in Hawai'i. On behalf of the Cantor family we declare the right to know what we are eating. We hope you support this bill. Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:31 PM
To: AGL Testimony
Cc: rfatheree@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ray Fatheree	Individual	Support	No

Comments: I support the labeling of genetically modified foods and would further support the elimination altogether of genetically modified foods. Why, in section 9 of this bill is the act to be effective in the year 2112? Something this century would seem more prudent. There may not be any unmodified foods by then. Let's have no modified foods. Let's not patent seeds. Let's have foods that we can grow from the seeds of the fruits and vegetables that we eat. Genetically modified foods genetically modify those who eat it. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:35 PM
To: AGL Testimony
Cc: ashley.kaono@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ashley Kaono	Individual	Support	No

Comments: We have a right to know what foods have been genetically modified. We, as the consumers, should be able to decide for ourselves if we want to consume foods that have been genetically modified rather than allow food companies an escape, essentially, by not disclosing such information. If it is the case that these foods pose no threat to anyone or anything, then those companies that produce genetically modified foods should have no fear in providing a simple label to identify them. It is currently unknown how genetically modified foods impact long-term health, human health and the health of the land. Due to this, we should be allowed access to this information to make our own decisions, based on what we think is best for our health and the health of our children. Companies producing GMO foods should be required to label their products and be willing to accept a level of accountability for that which they produce. Consumers, by right, should be allowed to make complete and informed decisions, based on access to information; this is a right that the people of Hawaii should have, a right that should not be denied by our own government. Please require genetically modified foods to be labeled and allow us to make our own decisions, uninhibited by our lawmakers and uninfluenced by those that stand to profit from such blatant non-disclosure. All food companies, including those in Hawaii and outside of Hawaii should be required to label GMO produce and products that include GMO ingredients. Thank you.

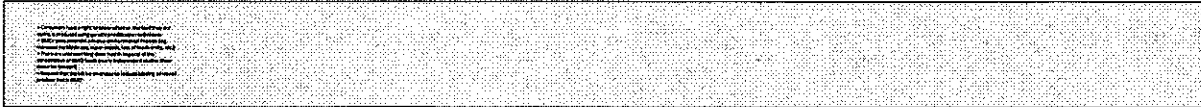
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nishihara1 - Amanda

From: Bill or Bobbie Best [bestb002@hawaii.rr.com]
Sent: Tuesday, March 19, 2013 7:37 PM
To: AGL Testimony
Subject: Please support labels for GMO food

Categories: Red Category



Mahalo,
Mr. and Mrs. Bill Best
280 Hauoli
Wailuku, Hi 96793

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:37 PM
To: AGL Testimony
Cc: rosecwang@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Rose Wang	Individual	Support	No
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Comments: Consumers have a right to know what they are purchasing and make a proper decision with all the facts. This is a basic right.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:38 PM
To: AGL Testimony
Cc: naldajw@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
JW Nalda	Individual	Support	No

Comments: Please remember the results of a Star Advertiser poll on march 11th that lasted from 12am to 4pm. SHOULD GMO FOODS BE LABELED AS SUCH? 80% YES 12% NO 8% UNSURE Even if you don't want labeling and monsanto doesn't want labeling, please remember that the people DO want labeling.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:39 PM
To: AGL Testimony
Cc: alayaden@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alaya DeNoyelles	Individual	Support	No

Comments: PLEASE, PLEASE, Please have it in your heart to protect our children's life and pass this labeling bill. It is imperative to the well being of our lives! Thank you for being pono!

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nishihara1 - Amanda

From: Marissa Leimakalanani Sperry [leimakana@gmail.com]
Sent: Tuesday, March 19, 2013 7:40 PM
To: AGL Testimony
Subject: Support HB174

Categories: Red Category

Aloha,

Please consider my testimony in SUPPORT of HB174. I SUPPORT an imposed labeling requirement and import restriction on imported genetically engineered produce. We the people want to know what exactly we are getting when we make a purchase, and labeling of produce does exactly that. This is just as important as knowing if you are buying produce sprayed with pesticide or not. Labeling is imperative to MY ability to make educated choices.

I urge you to SUPPORT HB174 as well.

na'u nō me ka 'ōia'i'ō
Marissa L. Sperry

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:40 PM
To: AGL Testimony
Cc: liquidsouljah@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Yushin	Individual	Comments Only	No

Comments: GMO's should be banned. They destroy the health of the people and destroy the environment. A 99-year timeline to label imported GMO's in Hawaii is outrageously long!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:43 PM
To: AGL Testimony
Cc: lynnehi@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
lynne matusow	Individual	Support	No

Comments: as a taxpayer and consumer who reads labels on foods, and who often puts items back on the shelf when I find ingredients I do not want to ingest, I am in full support of this measure. the public has a right to know. however, i believe all produce should be GMO labeled, local as well as imported. there is no way to know if GMO is safe. Often, years after products and medicines are declared safe and put on the market, studies prove them wrong and items are recalled and taken off the market. Please advance this bill. Stop supporting paid lobbyists whose only concern is their pocketbook and support consumers.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:44 PM
To: AGL Testimony
Cc: BernieStrand_LLC@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bernice Strand	Individual	Support	No

Comments: As a founding member of the newly created Waimanalo Ahupua`a Coalition (“WAC”), I strongly support House Bill 174, requiring labeling of food imported to Hawaii that is genetically modified (GMO). The Vision of the WAC is “Reconnecting Our Ohana to The Soil” and among our Missions is “to educate the public about healthy living” and “to promote respect for the sacredness of the `aina.” Both of these missions will be best served by the changes proposed by HB 174. Accurate information about the agricultural products that our families purchase and consume is essential for our ohana to make informed decisions about nutrition for their families, from keiki to kupuna. I hear that agri-business claims that GMO foods are substantially equivalent to non-GMO foods. Nevertheless, beef and horse meat are “substantially equivalent” proteins, and I would not want to consume one, thinking it was the other. More importantly, the process by which GMO foods are researched, incubated, and manufactured, requires broad “kill” pesticides and sterilizing chemicals be infused into the soil from which these “foods” are grown. I can think of no more disrespectful way to treat the `aina than to kill the creatures and organisms that have evolved in naturally symbiotic ways with heirloom and naturally farmed varieties of vegetables and fruits. I can think of no more offensive concept than to purposefully poison the land that sustains our lives and then distribute the artificially enhanced products that emerge as substantially equivalent to produce that has been grown in a less hostile, less artificially enhanced environment. As a society, we eschew artificially enhanced athletes as NOT substantially equivalent to naturally performing athletes. Why? Because we recognize that there is an element of their physicality that is “artificial”, that is not fully disclosing, and is arguably unhealthy. GMO products are of the same artifice. To reject labeling of GMO products imported from elsewhere cheats us from deciding for ourselves what we support, where we spend our money, and what we feed to our keiki and kupuna who may not have the wisdom or wherewithall to understand the nature of the “nutrition” that they are ingesting. I strongly urge you to approve HB 174. Get agri-business out of the way of self-determination in Hawaii!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:44 PM
To: AGL Testimony
Cc: lsgusman@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Linda Gusman	Individual	Support	No
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Comments: I support the bill for the following reasons: • Consumers have a right to know whether the food they are eating is produced using genetic modification techniques • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) I also strongly request that the bill be amended to include labeling of Hawaii produce that is GMO

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:44 PM
To: AGL Testimony
Cc: cravegreens@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Crystal Thornburg	Individual	Support	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:44 PM
To: AGL Testimony
Cc: corinebilledo@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Corine Billedo	Individual	Comments Only	No

Comments: As a concerned citizen I feel I have the right to know what is in our food. I support GMO labeling in all products...

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:48 PM
To: AGL Testimony
Cc: Lindyl@homeopathyhouston.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lindyl Lanham	Individual	Support	No

Comments: Aloha Committee Members, I strongly support the creation of a Pesticide Registry for our state. On Kaua'i we have 5 of the Big 6 chemical companies. They are leasing over 12,000 acres for experimental crops in various attempts to create herbicide resistant grains like corn, soy, sunflower and rice. We have more test fields than any other place on earth. We currently have no disclosure of what is being sprayed, and where. We do observe signs that show they are using a very long list of highly toxic chemicals such as round up, atrazine, dicamba, chlorpyrifos and 2-4,d. The community has a growing concern about the ever increasing amounts of stronger and stronger chemicals, and more and more acres, but we have very little information. We need to set up a system for spraying and chemical irrigation in a way that allows communities to protect themselves from exposure to air pollutants as well as downstream water and land pollutants. Chemical Agriculture may look green and benign but unless you live near these fields you would never know the the true experience of undisclosed spraying. This is radically different than local food farming. Residents and students suffer from sore throats, headaches, shortness of breath and nausea. We deserve the right the know what we are breathing so that we can take precautionary steps to avoid repeated and prolonged exposure in our homes, schools and hotels. Pesticide drift can travel to non target areas. If we had more information we could avoid exposure for the children, the kapuna and pregnant women. Pesticides are especially harmful to babies in the womb. This is a very reasonable request and Kaua`i asks for your support of a pesticide registry. This is long overdue for a state with the distinction of being number 1 in GMO experimentation. We should all understand the unintended reality of these research practices by chemical companies. Mahalo nui loa for supporting disclosure for the residents from Polihale to the north shore. We need your help, too many people are at risk without adequate representation and without proper disclosure.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:50 PM
To: AGL Testimony
Cc: benjamin.puckett@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Benjamin Puckett	Individual	Support	No

Comments: Thank you for looking into this issue. As a consumer I should know if the products I buy have been changed. I have a right to know, and the laws should support that not the buisnesses. If they are not trying to hide something why not just label it. Thank You, Benjamin Puckett

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:51 PM
To: AGL Testimony
Cc: Kboldrini@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kim boldrini	Individual	Support	No

Comments: Aloha senators, I am writing on behalf of support for the bill HB 174 HD2 to forbid the sale of GMO foods within the state of Hawaii without a label. I sincerely wish we did not even have GMOs on the market and wish the papayas sold from Hawaii were all non-GMO. However, this is a start in the right direction. For those of you in favor of this bill thank you. For those opposed wake up and realize the inherent risk to mankind that you are dealing with. You as senators work for us- the people- you are put in a position of government to serve the individuals and represent us to help create laws to protect our life, liberty, and property. Please remember why you took this oath. We must know where our food comes from, that it is healthy and nutritious and made from the earth -not engineered or modified in a plant. Our right to life and property stands at risk if this bill does not get passed. GMO contaminates water, air, and land. There are studies that show GMO foods ARE HAZARDOUS FOR OUR CONSUMPTION! Stop killing Americans! Studies/articles: "A French scientific study released this week asserts that laboratory rats fed Monsanto's genetically modified (GM) corn or low levels of Roundup herbicide for two years developed tumors and suffered damage to multiple organs. The rats in the test group also experienced significantly higher mortality rate than the control group." <http://research.sustainablefoodtrust.org/wp-content/uploads/2012/09/Final-Paper.pdf> Study: "The very first crop submitted to the FDA's (Food & Drug Administration) voluntary consultation process, the FlavrSavr tomato, showed evidence of toxins. Out of 20 female rats fed the GM tomato, 7 developed stomach lesions[56]. The type of stomach lesions linked to tomatoes could lead to life-endangering hemorrhage, particularly in the elderly who use aspirin to prevent blood clots [57]. The testicles of both mice and rats fed roundup ready soybeans showed dramatic changes. In rats, the organs were dark blue instead of pink. In mice, young sperm cells were altered [64]. Embryos of GM soy-fed mice also showed temporary changes in their DNA function, compared to those whose parents were fed non-GM soy [65]. Rats fed the GNA lectin potatoes had smaller and partially atrophied livers [59] Rats fed Monsanto's Mon 863 corn, engineered to produce Bt-toxin, had liver lesions and other indications of toxicity [60]. Rabbits fed GM soy showed altered enzyme production in their livers as well as higher metabolic activity [61]. Rats fed Roundup Ready soybeans also showed structural changes in their liver [44]. Allergic reactions occur when the immune system interprets something as foreign, different and offensive and reacts accordingly. All GM foods, by definition have something foreign and different. And several studies show that they provoke reactions.

GM potatoes caused the immune system of rats to respond more slowly [60]. And GM peas provoked an inflammatory response in mice, suggesting that it might cause deadly allergic reactions in people [66]. In addition to the herbicide tolerant protein, GM soybeans contain a unique, unexpected protein, which likely came about from the changes incurred during the genetic engineering process. Scientists found that this new protein was able to bind with IgE antibodies, suggesting that it may provoke dangerous allergic reactions."

http://www.academia.edu/542384/A_Review_on_Impacts_of_Genetically_Modified_Food_on_Human_Health "Scientists in Norway have released results from experimental feeding studies carried out over a 10-year period, and the verdict is in: If you want to avoid obesity, then avoid eating genetically engineered (GE) corn, corn-based products, and animals that are fed a diet of GE grain."

<http://articles.mercola.com/sites/articles/archive/2012/08/07/genetically-engineered-foods-hazards.aspx> Scientist fired after reporting that GMOs are harmful:

http://www.naturalnews.com/037665_GMO_scientists_organ_damage.html I refuse to buy from markets that allow GMOs to be sold. I will purchase only from farmers markets or from companies online from out of state that sell non-GMO foods if this is not addressed. The state of Hawaii and residents will be in an uproar. Enough is enough.! Stop taking money from big business and start helping out the citizens who deserve respect and pay for you all to care for us! The blood of the earth is on your hands. Thank you, Kim Boldrini

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:57 PM
To: AGL Testimony
Cc: Tonimag@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Toni Magbanua	Individual	Support	No

Comments: Aloha Honorable Senators of the Agriculture Consumer Protection & Health Committees, I am a Grandmother & I want to know if I am feeding my Grandchildren GMO's. We have a right to know what is in our food. I don't want to feed my Grandchildren pesticides. Thank you Toni Magbanua

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:57 PM
To: AGL Testimony
Cc: mauigirl.cari@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
cari taylor	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 7:59 PM
To: AGL Testimony
Cc: wendywailua@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Wendy Raebeck	Individual	Support	No

Comments: I emphatically support all Hawai`i's residents' right to know whether the food they purchase and consume is GMO or not. The RIGHT to choose in no way incriminates the GMO companies. If, in fact, there is no harm to food or land or our waters through the use of GMO agriculture, then their businesses will thrive with labeling—people can seek out GMO foods. If their assertions are incorrect, and there are negative impacts and ramifications from this experimental agricultural, then people can avoid GMO foods. The right to know is fair legislation. Mahalo nui!
Wendy Raebeck, Kaua`i

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:00 PM
To: AGL Testimony
Cc: jeffgerard@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
jeff gerard	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:01 PM
To: AGL Testimony
Cc: corinne@archline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Corinne Traylor	Individual	Comments Only	No

Comments: As a consumer, I have a right to know whether the food I am eating is produced using genetic modification. I respectfully request that the bill be amended to include labeling of Hawaii produce that is GMO. GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern)

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nishihara1 - Amanda

From: davidsher@juno.com
Sent: Tuesday, March 19, 2013 8:02 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: HB 174

Aloha

I strongly support HB 174 and urge you to pass this bill with an amendment to include labeling of Hawaii produce that is GMO as well. HB 174 is a very important bill for the people of Hawaii. Consumers have the right to know what's in the food they eat, and in fact, polls show that the majority of the public favor labeling GMOs.

The industry will claim that labeling GMOs will increase food prices. This is simply a scare tactic as they are already labeling for various other reasons, including for GMOs in countries that already mandate it.

If there's nothing wrong with GMOs, why not put it on the label? We all deserve the right to choose. Any roadblocks cited by the AG can be properly addressed so that the will of the people can be served. Be bold! Please pass this bill!

Respectfully,
Sherry Pollack
Kahaluu

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:07 PM
To: AGL Testimony
Cc: karinmedigo@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
karin medigovich	Individual	Support	No

Comments: Thank you for hearing this measure to label genetically engineered foods. This is of great importance to my health, my pets health and our island of Kauai. There has been little independent testing on the effects of this food on our bodies. Living on this island I know the pesticides used on these crops and the ill effects of them. Many other countries including the UK will not allow this food into their country. The large industry that is producing this food should be proud to label it or not to produce it. The use of chemicals on the production of this food is not something I want to support. How can I know what is in my food if it is not labeled? As elected senators to represent and protect individuals from the profit driven decisions being made in regards to the production of our food I ask you to please make them label their products. We vote for you, Help Hawaii be a safe food state. Your support of this measure will make a positive difference. And I hope it will take effect before 2112. That must have been a typo? Lets see it in 2012! Thank you

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:08 PM
To: AGL Testimony
Cc: Kilikinau@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cristina Bensley	Individual	Support	No

Comments: I strongly support this bill and GMO labeling for all food. We need labeling NOW! Mahalo, Cristina Bensley 1610 Wilhelmina Rise Honolulu 96816

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:10 PM
To: AGL Testimony
Cc: earlewave@hawaiiantel.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
danitza galvan	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:14 PM
To: AGL Testimony
Cc: lesielarsen@earthlink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Leslie Larsen	Individual	Support	No
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Comments: PLEASE Support HB 174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:18 PM
To: AGL Testimony
Cc: senda14@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
reece	Individual	Support	No

Comments: personally i would love to know.... just as we have the right to know what ingredients are in a food we should be able to know wether the food was genetically engineered with who knows what genes from where.. thank you

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:20 PM
To: AGL Testimony
Cc: moloaa1@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Andrew Fitts	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:21 PM
To: AGL Testimony
Cc: davene13j@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Davene Januszewski	Individual	Support	No

Comments: Please support GMO Labeling - I know it's not perfect but we have to start somewhere to protect citizens from this dangerous poison the the governments has allowed into our beautiful land. I know you're not going to kick the disgusting criminals Monsanto and the like out but let's not make is so easy for them to decimate the state.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:25 PM
To: AGL Testimony
Cc: jivanimark@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Mark Nilsson	Individual	Support	No
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Comments: I am supporting this bill for labeling.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:31 PM
To: AGL Testimony
Cc: caseytraverse@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Casey Sexton	Individual	Support	No
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Comments: I am in full support of HB 174. I believe we should however amend this bill so that it includes all GMO produce labeled, not just imported. I also believe that it should include all processed foods as well. I believe it is our human right to know if foreign gene's are embedded into our food supply. This bill is not an issue of wheather or not GMO's are bad, but wheather as a consumer we have the right to know if we are injesting said substances. As a consumer I have lost faith in our food supply for denying me the right to be informed what we are really consuming, what our children could be consuming. Kaiser Permanente is the largest healthcare provider in America and it has urged every single healthcare recipient to obstain from GMO laced foods. According to the American Academy of Enviromental Medicine: "Specificity of the association of GM foods and specific disease processes is also supported. Multiple animal studies show significant immune dysregulation, including upregulation of cytokines associated with asthma, allergy, and inflammation. Animal studies also show altered structure and function of the liver, including altered lipid and carbohydrate metabolism as well as cellular changes that could lead to accelerated aging and possibly lead to the accumulation of reactive oxygen species. Changes in the kidney, pancreas and spleen have also been documented. A recent 2008 study links GM corn with infertility, showing a significant decrease in offspring over time and significantly lower litter weight in mice fed GM corn. This study also found that over 400 genes were found to be expressed differently in the mice fed GM corn. These are genes known to control protein synthesis and modification, cell signaling, cholesterol synthesis, and insulin regulation. Studies also show intestinal damage in animals fed GM foods, including proliferative cell growth and disruption of the intestinal immune system." They continue on by urging "Physicians to educate their patients, the medical community, and the public to avoid GM foods" The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) report, authored by more than 400 scientists and backed by 58 governments, stated that GM crop yields were "highly variable" and in some cases, "yields declined." The report noted, "Assessment of the technology lags behind its development, information is anecdotal and contradictory, and uncertainty about possible benefits and damage is unavoidable." According to the Institute of Responsible Technology Biotech "The biotech industry uses 'tobacco science' to claim product safety. companies like Monsanto told us that Agent Orange, PCBs, and DDT were safe. They are now using the same type of superficial, rigged research to try and convince us that GMO's are safe." I believe we must label GMO's now. I will

not stop, I will not give up, until GMO foods are labeled. I will spend countless hours campaigning for food transparency and I will note any legislator that has stood in the way of our right towards food transparency.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:32 PM
To: AGL Testimony
Cc: sherry9pollock@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Sherry Pollock	Individual	Support	No
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Comments: We deserve the right to know if GMO is in our food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:33 PM
To: AGL Testimony
Cc: harvest@kauai-vacations-realty.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Harvest Edmonds	Individual	Support	No

Comments: Please support this bill to label foods being imported to Hawaii. We, the people want the right to know what food we are eating.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:41 PM
To: AGL Testimony
Cc: jjkauai@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
jonathan jay	Individual	Support	No

Comments: Aloha. I am from Kaua'i and i very much support GMO labeling. Please pass this legislation! We have a right to know what is our food. mahalo. jj

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:44 PM
To: AGL Testimony
Cc: jayparasco@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB174.doc

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Jason Parasco	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:46 PM
To: AGL Testimony
Cc: doreenhjacintho@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Doreen Jacintho	Individual	Support	No
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Comments: I am in support of HB 174, it is so important for our children. Thank you, Doreen

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:54 PM
To: AGL Testimony
Cc: caveguy@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Lars Lind	Individual	Support	No
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Comments: I urge you to support the labeling of genetically engineered food products in Hawaii, as well as imposing restrictions on the importation of such products into Hawaii. It is vital to our health and well-being that we, the consumer, know what is in the food that we eat! Mahalo for supporting this bill!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:55 PM
To: AGL Testimony
Cc: noahhamiltonphoto@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

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HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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noah hamilton	Individual	Support	No
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Comments: It's not about banning GMO's, its about labeling!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:56 PM
To: AGL Testimony
Cc: jmccay@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
James McCay	Individual	Support	No

Comments: Aloha and thank you for reading. I support this bill HB174 and I want to know what I am eating and have a choice of moving my money to support local non-GMO farmers. Please work out language to best address the imported foods and dockworkers concerns. Changes are needed and Hawai'i needs this bill to help the transition to the communities we want to live in. Many thanks, James McCay 2957 Kalakaua Ave, Honolulu HI 96815 808 321 0027

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 2:59 PM
To: AGL Testimony
Cc: magenta.designs@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

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HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Barbara Billett	Individual	Support	No
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Comments: I believe that it is crucial to LABEL gmo foods!!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:02 PM
To: AGL Testimony
Cc: dofriends@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
peggy watson	Individual	Support	No

Comments: please support this bill. Kauai is an isolated island. We are dependent on knowing the quality of foods we put in our bodies...please vote for the children of America..our health and the health of our future is in your hands...and in ours as we pick up our products LABELED NO GMO. thank you for your courage and caring acts.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:06 PM
To: AGL Testimony
Cc: maumartha@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Martha Lind	Individual	Support	No

Comments: Please support HB174! The labeling of genetically engineered food is so important for the health and well-being of Hawaii's citizens. Please require GMO labeling so that we, the consumer, can make an educated choice about what we eat. Mahalo!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:06 PM
To: AGL Testimony
Cc: kauaihale@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Support for GMO Labeling.pdf

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Louisa Wooton		Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:11 PM
To: AGL Testimony
Cc: midnightbearbreads@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
ursa swift	Individual	Support	No

Comments: It is the right of Hawaii citizens to know what they are eating. Please allow labeling laws to pass so we may make informed decisions on what we consume. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:16 PM
To: AGL Testimony
Cc: stasiaestep@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB 174.rtf

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Anastasia Estep	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:17 PM
To: AGL Testimony
Cc: apohi21@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
bill brown	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:17 PM
To: AGL Testimony
Cc: ourlifeaquarius@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jon Estep	Individual	Support	No

Comments: Label GMOs in 2014!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:18 PM
To: AGL Testimony
Cc: taylor.summerfield@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Taylor Summerfield	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:19 PM
To: AGL Testimony
Cc: charlestaua@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Charles Taua	Individual	Support	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:19 PM
To: AGL Testimony
Cc: forestaf@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Forest Frizzell	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:20 PM
To: AGL Testimony
Cc: shiningspirit333@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Donna Rizzo	Individual	Comments Only	No

Comments: Please mandate labeling of all GMO. And EVICT MONSANTO from Hawaii

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:23 PM
To: AGL Testimony
Cc: LisaBarstow9@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Lisa Barstow	Individual	Support	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:26 PM
To: AGL Testimony
Cc: judie@aloha.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Judie Hoepfner	Individual	Support	No

Comments: Please don't cave in to chemical company big money. The people deserve to know what is in the food we're eating. Let's be a leader in food security and do what California couldn't. Thanks

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:29 PM
To: AGL Testimony
Cc: rob@surfbeyond.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GM-Crops-just-the-science.pdf

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Robert Barreca	Individual	Support	No
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Comments: It is the difficult job of each and every legislator to look past the few lowbrow and emotion-based responses from some of those in support of this bill. Please don't let those "bad seeds" spoil the soil for the rest of us (amazing pun!). Please look at the peer-reviewed scientific studies attached as my testimony upload. There is no body of science concluding that GMOs are safe. The research points to them being a risk today and another short-sighted attempt to work around nature, rather than with it. Due to this research, consumers at the very least have the right to choose. That's all we are asking for. I humbly request you to label both imported and local GMO produce and let us protect ourselves.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:31 PM
To: AGL Testimony
Cc: maggiyount@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maggie Yount	Individual	Support	No

Comments: It is so important to me and most of America that Hawaii passes this bill to label genetically modified food and organisms. We have a right to know what we're eating and as GMOs carry a patent, they are clearly not equivalent to conventional foods. The health of the nation and the environment is at stake here and it would be meaningful for Hawaii to be the first to have a labeling law. Please do this, for all of us.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:34 PM
To: AGL Testimony
Cc: pathworker@tds.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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David Sutton	Individual	Support	No
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Comments: Ladies and Gentlemen: I write in support of HB 174. As a parent and human being, concerned for health and for our land, I want to know what is in my food. We have had food labeling for many decades now. There is no harm in disclosing GMO content or any other content in our food sources. We have the right to know and we deserve the choice. Please vote for HB 174 and see that it becomes law. Your family, friends and descendants will honor you! This is of vital importance! Please take time to read the following statement of the American Academy of Environmental Medicine provided by this link: <http://www.aaemonline.org/gmopost.htm> Aloha! ds

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:37 PM
To: AGL Testimony
Cc: sacredearth@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

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HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Eve Powers	Individual	Support	No
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Comments: People have the right to know what they're eating! Please vote to label all GMO-ingredient foods. Thank you!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:40 PM
To: AGL Testimony
Cc: brecheisen22@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Melinda Brecheisen	Individual	Comments Only	No

Comments: I am responsible for my own body and my own health. I can not make important decisions regarding the food I eat without knowing what I am eating. I do not trust GMO's. Please give us the choice by labeling foods with what they really are. We are only asking for TRUTH.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:47 PM
To: AGL Testimony
Cc: snsmit808@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Stephanie Smith	Ohana O' Kauai	Support	No
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Comments: As a human being and as a citizen of the United States of America (land of the free) I should have the right to know what I am eating. The freedom to know what is in the food that my family is eating. Our freedom is getting less and less by the day and by taking away our freedom to know what we are putting in our own bodies is just unethical. I support the labeling of ALL GMOs! Let FREEDOM ring!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:48 PM
To: AGL Testimony
Cc: ckudo@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: gmo-bill-support-labels.doc

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
colleen kudo	Individual	Support	No

Comments: mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 3:58 PM
To: AGL Testimony
Cc: eloheynu@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

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HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Andree Lecocq	Individual	Support	No

Comments: am landowner from Kauai,,,,,,,,,want GMO labeling,,,,,,,,,it is only fair; cigarettes are labeled, and people have a choice to make, and plenty of people are still smoking; don't favor the big corporations, feel for the people and children of Hawaii,,,,,,,,,the Health dept should be pushing this bill for labeling so people have a choice

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:00 PM
To: AGL Testimony
Cc: proofitworks@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Aloha (HB174).docx

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Cora Piliwale	Individual	Support	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:01 PM
To: AGL Testimony
Cc: rnamiki@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Reiko Namiki	Individual	Support	No
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Comments: "Awareness about GMOs and the fact that they continue to remain unlabeled in the American food supply is becoming a forefront issue in the public spotlight. The truth about the dangers and ineffectiveness of GMOs, as well as the extreme toxicity of Roundup (glyphosate) and the other chemical pesticides and herbicides used on GMOs, are also gaining national attention."

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:09 PM
To: AGL Testimony
Cc: jtrujill@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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james trujillo	Individual	Support	No
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Comments: aloha members of the committee, please accept this testimony in favor of labeling gmo produce and passing HB 174. as a consumer i have a right to know what is in my food and how it's made or grown. previous versions of this bill would've made labeling for all food made w/GMO but it has been weakened to only include imported produce amongst other factors to monitor the intake of gmo products. i support the passage of HB 174 as drafted so that hawaii can start the process of addressing concerns related to gmo technology and the foods that is produced by this process. mahalo for considering this testimony in favor of supporting gmo labeling and passing HB 174 on to the next committee for their consideration. with respect and aloha, james g trujillo po box 33 kapaa, hi 96746

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:31 PM
To: AGL Testimony
Cc: kylesleppy@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB174.docx

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kyle Sleppy	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:33 PM
To: AGL Testimony
Cc: ritchs_102@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Richard Sullivan	Individual	Support	No
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Comments: It is absolutely essential and decent for people to know what they are ingesting for their BASIC HEALTH A person must ask themselves the question. Why on earth would anyone ever want to suppress such information? Respectfully Richard Sullivan Kalaheo, HI

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:46 PM
To: AGL Testimony
Cc: mauinko@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

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HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Marirai Tauotaha	Individual	Support	No
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Comments: The day will come when our descendants will realize the true impact of our ways on the land and sea, and ultimately all creatures of this earth, including ourselves. When that day comes, my descendants will be proud to know that I did something about it. How will your descendants feel about your value for the natural resources you left in tact for them? At the very least you gave people a choice to live harmoniously with the land.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:53 PM
To: AGL Testimony
Cc: jacob@gracefellowshiphawaii.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jacob	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 4:59 PM
To: AGL Testimony
Cc: kauaigeo@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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george hoffberg	kauairising	Comments Only	No
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Comments: i support kauai rising

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:07 PM
To: AGL Testimony
Cc: capt-kimo@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kimo Field	Individual	Support	No

Comments: People have the Right-to-Know Act....GMO Labeling. I am in support of GMO labeling, to decide what is healthy for myself and family.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:13 PM
To: AGL Testimony
Cc: sherrianwitt@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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sherrian witt	Individual	Support	No
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Comments: I support having GMO products labeled.

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nishihara1 - Amanda

From: Maurizia Zanin [mauriziazanin@gmail.com]
Sent: Tuesday, March 19, 2013 5:15 PM
To: AGL Testimony; CPN Testimony; HTHTestimony
Subject: HB 174

Categories: Red Category

I support the HB 174 pertaining to food labeling.

--

Maurizia Zanin, LMT, NCBTMB, ABMP, CIPI
808-635-8049
PO Box 738
Hanapepe, HI 96716

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:31 PM
To: AGL Testimony
Cc: mendezj@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez- Alvarez	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:48 PM
To: AGL Testimony
Cc: spicuzza.gail@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gail Spicuzza	Individual	Support	No

Comments: It is important to know if harmful pesticides were used in the production of the food and this too ought to be on the label.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:48 PM
To: AGL Testimony
Cc: williamcash101@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
William Ash	Individual	Support	No

Comments: Dear Senators, From all available information on the subject of Genitically Modified Organisms I have been exposed to, I have come to the opinion that there is little or no oversight of the long term affects of these new man made life forms. The characteristics they are developing for resistance to toxic chemicals and disruption of digestive systems of organisms are potentially hazardous of other life forms to include us. For this reason I must have the choice to decide whether I wish to consume these products in our food supply today. It's what a reasonable man should expect. Please pass this law. Sincerely, William Ash Kauai, HI

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:49 PM
To: AGL Testimony
Cc: cliffdev@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: testimony in support of HB 174.docx

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cliff & Mary DeVries	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 8:54 PM
To: AGL Testimony
Cc: serena9@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Serena Podish	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 8:54 PM
To: AGL Testimony
Cc: jlouis@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jamie Louis	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:02 PM
To: AGL Testimony
Cc: Mokkaaihu@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matthew Ka'aihue	Individual	Support	No

Comments: In Support of HB174. Food needs to be labeled. Consumers have a right to know what is being put in their food especially regarding GMO products.

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Sent: Tuesday, March 19, 2013 9:05 PM
To: AGL Testimony
Cc: artfunk77@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
arthur gollenfunkt	Individual	Comments Only	No

Comments: Mahalo for labeling GMO foods. We have the right to know what is in our food.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:06 PM
To: AGL Testimony
Cc: julie.takishima@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Julie Takishima	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:09 PM
To: AGL Testimony
Cc: elwenfreitas@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elwen Freitas	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 9:16 PM
To: AGL Testimony
Cc: quindembokauai@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Monica Arnett	Individual	Comments Only	No

Comments: Thank you for your time and service to the people of Hawai'i. Please hear Bill HB 174. The labeling of GMOs in our food is very important for the future of Hawai'i. Thank you.

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Sent: Tuesday, March 19, 2013 9:18 PM
To: AGL Testimony
Cc: lunabelleloves@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stacy Kennedy	Individual	Comments Only	No

Comments: It is imperative that our freedom of choice be protected by creating a requirement for labeling genetically modified organisms. If it is not labeled, we are not being informed, and therefore cannot make an easy choice on the matter. Many other countries in the world are discussing, labeling, and banning GMOs in their countries, and it is time we do the same. Please take the steps necessary to protect our right to know what we are eating. Mahalo Nui Loa, Stacy Kennedy

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Sent: Tuesday, March 19, 2013 9:21 PM
To: AGL Testimony
Cc: lkukona@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lindsay Kukona	Individual	Support	No

Comments: GMO labeling of produce is an extremely important issue and reflects the community's desire to make a choice about what we eat. The ability to make an informed choice about something as important as what we put in our bodies is essential to protecting ourselves, our families, and our communities. Please support our right to choose!

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Sent: Tuesday, March 19, 2013 9:22 PM
To: AGL Testimony
Cc: oolgoddy@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Linda Masterson	Individual	Support	No

Comments: The right to make informed decisions about one's food is a fundamental human right and this right should be upheld by all government agencies and departments. Vote YES on HB 174.

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Sent: Tuesday, March 19, 2013 9:23 PM
To: AGL Testimony
Cc: kachina@mauigateway.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pamela Palencia	Individual	Support	No

Comments: Please support with amendment to include all Whole Foods. Mahalo

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:26 PM
To: AGL Testimony
Cc: akimarceau@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ak Marceau	Individual	Support	No

Comments: Honorable Senators of the Agriculture, Consumer Protection and Health Committees. Please hear this bill and recommend passage with the following two amendments: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. It is important for the overall sustainability of this land and to the health and welfare of those living in Hawaii that this bill be passed. Sincerely, Aki Marceau Kaimuki Resident

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Sent: Tuesday, March 19, 2013 9:33 PM
To: AGL Testimony
Cc: planetarystorm@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
elizabeth reeves	Individual	Support	No

Comments: Thank you for hearing this bill. I urge you to support HB174. Whether or not any of you voting care to eat GM food, whether you are aware of the effects of them or not... Please respect the fact that a growing majority of citizens do support labeling of GM food. I choose not to eat it. So it is very important to me to know if something I would like to buy contains gm ingredients. Just like we have mandatory labeling of so many other food additives, this additional requirement is inconsequential to the cost of food (as already proven in the 60 plus countries that DO require labeling). I have the right to know what I feed myself and my children. Please vote YES on HB174 Mahalo

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Sent: Tuesday, March 19, 2013 9:36 PM
To: AGL Testimony
Cc: suntrops@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Theresa Roberts	Individual	Support	No

Comments: As a consumer I have the right to know if the food I am eating was produced using genetic modification techniques. I really don't want to eat anything that can last for months, is super sized with no taste, or has been modified to be pest resistant!!!

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:38 PM
To: AGL Testimony
Cc: ritahands@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rita Massey	Individual	Support	No

Comments: Please label foods with GMOs. There has not been enough testing. We really don't know in the long run what effect GM foods may have on us. Some research shows there could be serious health problems from GMO foods. Labeling will help keep track if there are problems.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:41 PM
To: AGL Testimony
Cc: valerianalove@rocketmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Valeriana Bojdar	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:42 PM
To: AGL Testimony
Cc: jasonking96826@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jason King	Individual	Oppose	No

Comments:

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Sent: Tuesday, March 19, 2013 9:43 PM
To: AGL Testimony
Cc: smaes@expedia.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
sarah maes	Individual	Support	No

Comments: I support with amendment to include all whole foods! Label all GMO's now.

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Sent: Tuesday, March 19, 2013 9:42 PM
To: AGL Testimony
Cc: seashellsmichelle@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Archuleta	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 9:43 PM
To: AGL Testimony
Cc: souki911@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kathleen Noelani Soule	Individual	Support	No

Comments: As a consumer, I have a right to know whether the food I am eating is produced using genetic modification techniques. I believe that GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) Lastly, I request that the bill be amended to include labeling of Hawaii produce that is GMO. Mahalo!

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nishihara1 - Amanda

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Sent: Tuesday, March 19, 2013 9:43 PM
To: AGL Testimony
Cc: cchow78@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
christine kauahikaua	Individual	Support	No

Comments: Aloha Honorable Senators of the Agriculture, Consumer Protection and Health Committees, I am a Mom of three young boys. I want what's best for them. There is a saying "we do not inherit the Earth, we only borrow it from our children." It is all of our responsibility to steward the `aina in a pono way. All Moms and citizens should have the right to know if their food is genetically modified so that they can make the decision on what is healthy for their families and how best to make food choices to protect the environment. Please pass HB 174 with the following ammendments: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. If any Senator votes against this or if the Chairs Nishihara and Baker move to amend it from it's labeling form into a labeling study or any other sneaky trick, if they defer the bill and kill it, if they do not add in local produce, if they do not pass this labeling bill favorably, I will work on a deeply dedicated level against their re-elections. The people on all islands over the last 3 months have spoken loud and clear through testimonies, rallies and marches. We want our food labeled!!! Will you choose to represent your constituents whom you represent? Or will you instead appease corporate greed? Please make a pono choice and represent your peoples' wishes!!

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Sent: Tuesday, March 19, 2013 9:45 PM
To: AGL Testimony
Cc: daisygirlnm@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Charlotte Casey	Individual	Support	No

Comments: I am writing in SUPPORT of HB 174. We DESERVE the right to know WHAT we are buying with OUR earned money. I should have the RIGHT as a mother to KNOW what I am feeding my children. Europe labels, so should we. Please do the right thing. Aloha.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:47 PM
To: AGL Testimony
Cc: henry@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Henry deButts	Individual	Oppose	No

Comments: I am opposed to this unnecessary excessive proposal. This proposal may even be unconstitutional. There is no evidence that GMO food poses any threat to humans. All the "hysteria" over GMO's is unfounded hype pushed by the people with no clue what they are talking about. Dump that bill!

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Sent: Tuesday, March 19, 2013 9:49 PM
To: AGL Testimony
Cc: launahele@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Pang	Individual	Support	No

Comments: Please help our families and keiki know what is in our food. Labelling helps us decide if we want to eat GMO foods or not. Amend the bill to allow labeling of Hawaii food.

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Sent: Tuesday, March 19, 2013 9:50 PM
To: AGL Testimony
Cc: tjsimms2000@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
tj simms	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:51 PM
To: AGL Testimony
Cc: ti_health@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tia Kent	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:51 PM
To: AGL Testimony
Cc: taterocks@socket.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tatiana Rocks	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:52 PM
To: AGL Testimony
Cc: tr_qn@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tran Quen	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:52 PM
To: AGL Testimony
Cc: tammui@sbcglobal.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tam Mui	Individual	Support	No

Comments: Label GMO

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:53 PM
To: AGL Testimony
Cc: FishiePiggie@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Finia Kaanoa	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:53 PM
To: AGL Testimony
Cc: Alohapahap@aol.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paula Cohen	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:53 PM
To: AGL Testimony
Cc: gene_lamkin@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gene Lamkin	Individual	Oppose	No

Comments: Labeling will only increase the cost of foods. GMO is found in many foods today, and people have been safely consuming GMO products for centuries without any ill effects. Consider the added costs to low income families because of labeling. How will the cost of enforcement impact the already high cost of foods on these islands. Fear and ignorance is driving the GMO scare by people that hate corporations. There is no scientific evidence to support that GMO is either harmful to humans, animals or plants. If there were ill effects, the USDA would have shutdown companies like Monsanto long ago. Consider the Pink Slime scare that turned out to be nothing but common, safe, industry practices for decades. In fact, GMO has been around for centuries creating disease resistant, drought resistant and more nutritious foods. When politicians are wringing their hands over people dying of obesity, rather than starvation and malnourishment, then we have our priorities misplaced.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:53 PM
To: AGL Testimony
Cc: fivestarrugrats@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Frank Williams	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:54 PM
To: AGL Testimony
Cc: 09jjuju@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Julian Jiman	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:54 PM
To: AGL Testimony
Cc: silverpenny10@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
penny silva	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:54 PM
To: AGL Testimony
Cc: pualehuafarm@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pua Kamoa	Individual	Support	No

Comments: No GMO

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:55 PM
To: AGL Testimony
Cc: ggexcavations@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Kirbin	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:55 PM
To: AGL Testimony
Cc: gysiemee@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Geiselle Meek	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:55 PM
To: AGL Testimony
Cc: garypopkin@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
gary popkin	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:56 PM
To: AGL Testimony
Cc: kingkongsuperman@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kai Saith	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:57 PM
To: AGL Testimony
Cc: kensells@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ken Sellis	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:57 PM
To: AGL Testimony
Cc: ln421@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Larson Noa	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:57 PM
To: AGL Testimony
Cc: lieu_q_nguyen@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
lieu nguyen	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:58 PM
To: AGL Testimony
Cc: michaelhawthorne1@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
michael hawthorne	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:58 PM
To: AGL Testimony
Cc: mondiaux@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mondiau Simmons	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:58 PM
To: AGL Testimony
Cc: chaund5924@sbcglobal.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
chauncy domin	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:59 PM
To: AGL Testimony
Cc: cotuht@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cotu Connors	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:59 PM
To: AGL Testimony
Cc: suphamsaigon@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
sue phalen	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 9:59 PM
To: AGL Testimony
Cc: samanthacresanto@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
sam cresanto	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:00 PM
To: AGL Testimony
Cc: suyng07@sbcglobal.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Suy Nathan	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:00 PM
To: AGL Testimony
Cc: johnrobc@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John connors	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:01 PM
To: AGL Testimony
Cc: jamies@tws.org.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jamie Schwartz	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:01 PM
To: AGL Testimony
Cc: dkhy82@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David Yamano	Individual	Support	No

Comments: GMO's should be banned in full but since that will be hard to do. Studies have found that 2nd generation rats whose grandparents that were feed GMO foods were found to be sterile. Do you want to be responsible for sterilizing people, with the GMO labeling people have a choice to eat GMO foods or not. Here's a Google link to the studies showing rats and pigs were sterile,
https://www.google.com/#hl=en&client=psy-ab&q=gmos+make+rats+sterile&oq=gmo+rat+ste&gs_l=hp.1.2.0i22i10i30j0i22i30l2.1986.19815.0.41087.11.10.0.1.1.0.162.1358.0j10.10.0...0.0...1c.1.7.psy-ab.RgQIMj_bdX0&pbx=1&bav=on.2,or.r_qf.&bvm=bv.44011176,d.cGE&fp=928d501b1db03e88&biw=1280&bih=620

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:04 PM
To: AGL Testimony
Cc: dale.hawaii@usa.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mr & Mrs. D. Dudas	Individual	Comments Only	No

Comments: Honorable Committee members, we fully support labeling foods which have been genetically modified or genetically engineered at any time in their development. We even take exception to para 5 of the bill, and would urge that even food grown in Hawaii, and all foods sold in restaurants that have some form of genetic engineering be labelled. The ramifications to our health, our family and our children require every citizen be able to make an informed choice of what type foods to purchase. The negative health hazards of genetic modified foods, especially to people with compromised immune systems are too great not to arm citizenry with this information. Thank you for your time. Please prayerfully consider your decision before voting.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:05 PM
To: AGL Testimony
Cc: mpeary1947@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Margaret Peary	Individual	Comments Only	No

Comments: Dear House Committee Members, I want to go on record in support of HB174. It is a good first step in addressing the dastardly issue of genetically engineered foods. Our state is now inundated by the likes of Monsanto, et al who seek to capitalize on their GMO industry at the risk of our environment and potential health threats to our good citizens of Hawaii. God made food perfect! It is man's hubris and greed that has gotten us where we are today in terms of our horrendously compromised food chain. It is my understanding the bill only would encourage "imports" to be labeled vs. Hawaii grown food. I believe that is wrong since I've been told that ALL of the Rainbow papayas grown on the Big Island are genetically engineered. I'm happy to see Down to Earth Corporation is taking a stand against ALL GE foods and is refusing to sell it, including Rainbow papayas. Others, however; who shop at Foodland, Times, Safeway, etc. may not realize that the papayas they are eating ARE GE (or GMO). In conclusion, we need to go MUCH further in making our State GMO or GE FREE! Kick out the likes of Monsanto from HI. If we don't, we will pay dearly with polluted land, water, air and humans!!! Sincerely, Margaret Peary Mililani Mauka

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:06 PM
To: AGL Testimony
Cc: nlbrown623@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole Brown	Individual	Support	No

Comments: Consumers have a right to know whether the food they are eating is produced using genetic modification techniques. GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern). Please have this bill be amended to include labeling of Hawaii produce that is GMO. Mahalo for your kokua!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:09 PM
To: AGL Testimony
Cc: mzerbe808@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Margaret Zerbe	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:10 PM
To: AGL Testimony
Cc: ssalmers@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sandy Salmers	Individual	Support	No

Comments: I support HB 174 HD2. Please support the labeling of genetically engineered produce and plants in Hawaii. I also support the labeling of non-genetically engineered food in Hawaii. Please protect the health and rights of citizens in Hawaii to purchase and eat non-genetically engineered food. Thank you.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:14 PM
To: AGL Testimony
Cc: kauairising@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Shooltz	Kauai Rising	Support	No

Comments: Aloha Senators, Mahalo for choosing to hear HB 174. Please support the passage of GMO Labeling and HB 174. The people have a clear right to know what they are eating. Obviously only a nefarious agenda would strive to hide that information. And on another level, which is even more important, this is about much more significant issues. It is about our democracy and who you, our elected officials are actually representing. These are times when the challenges are truly large, and we clearly recognize and empathize with the pressures that each of you are under continuously. These are times when all of us are being severely tested to see if we have the courage to stand up for the deepest Truth that we know in our hearts. What do we make more important than the well being of our people and the land that we call our home? And why would we choose to make anything more important than those values?? If we knew that this was our last day on Earth, what would we choose??? What will you choose?? When each one of us finds the courage to actually listen to, and act upon that place in our heart that recognizes Truth, a much better world for EVERYONE will emerge!! There are no special interest groups when Right Choices are made and Truth prevails. Right choices benefit everyone!! We believe that a better world is rapidly approaching and that it's emergence is assured. We merely get to decide, through our choices, how painful that birth will be. Of course in some circles these perspectives are considered naive. But they are riding on a rapidly rising tide of growing awarenesses everywhere. It will not be turned aside. It's time to catch that wave!! Please support GMO Labeling by taking this one small step that is the passage of HB 174. The courage of that choice will support thousands of your people, rather than merely the greedy few, and that leadership will inspire your colleagues, your people, all of Hawaii, and far beyond. You are facing a wonderful opportunity to truly make a difference for so many. It is a very valuable gift you are being offered in these times if you will choose to receive it. You have the opportunity to show up and, not only receive that gift, but give an even greater gift to so many; to catalyze the extraordinary changes being energized in these times. Not everyone is given the opportunity you have before you now. May we all be blessed with the Wisdom to know what is right, and the courage to do what is right. Carpe Diem!! PLEASE courageously seize the day!! Blessings, Michael Shooltz on behalf of Kauai Rising

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 10:22 PM
To: AGL Testimony
Cc: steveajmn@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Johnson	Individual	Support	No

Comments: As a resident of Hawaii I strongly support HB174 even though I find it lacking in the failure to require GMO labeling status for foods produced here in our own state. Failure to require food manufacturers of food produced within the state of Hawaii may cause consumers to prefer imported foods over Hawaii produced foods if Hawaiian production does not provide consumers the information they desire to know about the food they are consuming. For instance, if I have a choice of buying a Maui Gold pineapple vs an imported pineapple I would more likely choose the imported product if I was able to discern that the imported pineapple was GMO-free. Because labeling requirements would not apply to a Hawaii produced pineapple I would avoid the Hawaii produced pineapple because it would carry with it a level of uncertainty about it's GMO status. None-the-less, I think this bill is a good start. The free market will likely resolve the problem I mentioned above if the bill is passed. Hopefully Hawaii producers will understand the consumer may prefer to know the GMO status of their product, which in turn will hopefully lead producers to produce non-GMO products and voluntarily label them as such. What should perhaps be added to this bill or another bill, is that any voluntary labeling of Hawaii food products must be truthful and monitored. There needs to be strict penalties in place for those Hawaii producers who mislabel their products as GMO-free. Thank you for your consideration. Steve Johnson of Kaneohe HI 96744

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To: AGL Testimony
Cc: donvlax@maui.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Don V Lax	Individual	Support	No

Comments: Please protect the health and welfare of the citizens, children, and elders of Hawaii, and support a comprehensive bill that keeps us informed on what food is safe to consume.

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Sent: Tuesday, March 19, 2013 10:54 PM
To: AGL Testimony
Cc: mauka_man808@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rob Bueller	Individual	Comments Only	No

Comments: I'm Robert Bueller and I'm submitting this testimony in support of HB 174 to Label produce in Hawaii. Currently, 62 countries around the world require labeling of genetically engineered foods. Unlike most other developed countries – such as 15 nations in the European Union, Japan, Australia, Brazil, Russia and even China – the U.S. has no laws requiring labeling of genetically engineered foods. So this would make Hawaii the first to pass this sort of bill. It's only fitting since Hawaii has become the ground zero location for the production of GMO seed products this we should be first to regulate it. I'm not totally happy with the way this bill is written but at least it's headed in the right direction and we have to start somewhere and hopefully during the process the bill will be amended and we will find consensus and it will garnish enough support to become a law. But the bottom line concerning a labeling law is we all have the right to know what we are buying, eating and feeding to our children, By no means is this legislation unconstitutional even the way it's written and besides, is that this bodies responsibility at this point to determine whether it is or not? Shouldn't we let the courts decide that when the time comes? It would seem that it's unconstitutional for me to go to the store buy food I'm going to eat and not know whether it is a GMO or not. Our senators need to be more mindful in their efforts to protect the safety of the people and their first amendment rights and not link the amendment to be used commercially to push corporate hidden agendas that obscure the truth. Enough people have come forward to express their right to know what is in our food. If other countries have mandated labeling or completely banned GMOS to exist on their land obviously it was for a good reasons to protect the safety and well-being of their land and people. These countries actually listened to their citizens voices. Countries like China, India, Saudi Arabia, Russia and even famished Ethiopia. All we are asking is that you give us the same respect and representation that exemplifies that of a nation that calls itself the leader of the free world. Lets us remember Hawaii's state motto: Ua mau keia Ika aina ika pono, and keep it alive in the decisions and actions of your leadership in representing the best interest of the hard working average citizens of this state. The life of our land needs to be preserved in righteousness. Senators I urge you to do the right thing for the people of our beautiful state and fragile eco-system. V/r, Robert Bueller

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Sent: Tuesday, March 19, 2013 10:58 PM
To: AGL Testimony
Cc: caree@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Caree Weisz	Individual	Support	No

Comments:

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To: AGL Testimony
Cc: Cassiejo@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cassie	Individual	Support	No

Comments: We deserve to know what we are consuming. If there is reason to hide it then there is reason to think something is not right or healthy for us. Please make sure that this gets passed so we can know what we eat. I have kids and would like them to be healthy and live a good healthy life and if they chose to eat gmo foods at least they chose it on their own and not by some hidden unknown or being tricked. Until there is proof that none of these genetically processed foods aren't going to hurt us in the long run we shouldn't be eating them without our knowledge.

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Sent: Tuesday, March 19, 2013 11:08 PM
To: AGL Testimony
Cc: makana@kevcom.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matthew Swalinkavich	Individual	Support	No

Comments:

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To: AGL Testimony
Cc: ponosize@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pono Kealoha	Individual	Support	No

Comments: AMENDMENTS: : 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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Sent: Tuesday, March 19, 2013 11:13 PM
To: AGL Testimony
Cc: mscharlenej@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Charlene Smith	Individual	Support	No

Comments: This bill needs to be passed for the well being of Hawaii. We have a right to know what we ingest, especially if there is any question of it's safety. Shame on anyone that thinks differently! We are the state with the most endangered and extinct species and this bill is twenty years over due.

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Sent: Tuesday, March 19, 2013 11:18 PM
To: AGL Testimony
Cc: gohara3@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dawn Gohara	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 11:18 PM
To: AGL Testimony
Cc: dakinewindowcleaning@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Riki Roberts	Individual	Support	No

Comments: The people of Hawaii would benefit from being able to make knowledgeable decisions about the food they buy and consume. We should be able to know if our food has GMO's in it or not. Pass this bill for the best interests of the people of Hawaii. Thanks.

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Sent: Tuesday, March 19, 2013 11:19 PM
To: AGL Testimony
Cc: Laurie.yoshida@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie Yoshida	Individual	Oppose	No

Comments: My name is Laurie Yoshida and I oppose HB 174 and ask that you do not pass it out of committee.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:22 PM
To: AGL Testimony
Cc: kimmosley@earthlink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kim Mosley	Individual	Comments Only	No

Comments: I am urging you to join the 93 percent of the American people who want federal labeling of genetically engineered (GE) foods. These GE foods have not been tested for their long-term health implications. We have the right to know about our food and the freedom to choose what we buy and serve our families. Powerful interests are trying to keep Americans in the dark about which foods are genetically engineered. These interests spent \$45 million in California in 2012 to preserve that secrecy by defeating Prop 37. Please endorse federal labeling of GE foods, and vote against any legislation that would bar the Food and Drug Administration, or the states, from mandating labeling GE food. I look forward to your response. Thank you, Kim Mosley Kihei, HI

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Sent: Tuesday, March 19, 2013 11:28 PM
To: AGL Testimony
Cc: jmyasuda15@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jon Yasuda	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:28 PM
To: AGL Testimony
Cc: barbarapolk@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara B. Polk	Individual	Support	No

Comments: I urge you to pass HB 174 to require the labeling of genetically engineered produce. GMOs have NOT been around for thousands of years, but only for a few decades. It is too early to know what impact they may have on human health. Without labeling, we can never discover what the impact is. I want to know what kind of food I am eating and be able to make a choice as to whether to eat GMO produce. I can see no legitimate reason to deny people this choice. HB 174 is only a first step, since it only covers fresh produce sold directly to consumers. I would prefer the labeling to apply to all food products and to restaurant food. Nevertheless, a first step is worth taking. I urge that you pass this bill.

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Sent: Tuesday, March 19, 2013 11:28 PM
To: AGL Testimony
Cc: supermariobros_7@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mario Garcia	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 11:30 PM
To: AGL Testimony
Cc: boogiesci@earthlink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brook Parlow	Individual	Support	No

Comments: We are requesting two amendments: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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To: AGL Testimony
Cc: Kariderr@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kari Derr	Individual	Support	No

Comments: Please make GMO labeling a requirement so we have a choice. Mahalo, Kauai Mother

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Sent: Tuesday, March 19, 2013 11:33 PM
To: AGL Testimony
Cc: mauiamy@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Joyce Chang	GMO Free Maui	Comments Only	No

Comments: Honorable Senators of the Agriculture, Consumer Protection and Health Committees, Thank you for your presence and representation. This is a very important bill for the longterm health and welfare of our land and people. I realize its absurd in many ways that the State goverment has to deal with this. Really, the corporations make huge profits and should take the responsibility and real costs of their product by labeling like 170 other countries. Unfortunarely since they won't until they are forced, we need local laws. Our previous legendary Senators, Inouye, Akaka and Patsy Mink all spoke in favor for Hawaii's right to know. Please follow their political wisdom and insight. I am very active politically, I spearheaded our spa team to joing the ILWU. I will follow your vote in detail and will take the information to the polls in the next election cycle. with aloha, Amy Chang

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Sent: Tuesday, March 19, 2013 11:33 PM
To: AGL Testimony
Cc: doquinn@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David O'Quinn	Individual	Support	No

Comments: As a health conscious citizen I ask that you support HB 174 in support of labeling GMO's. I have a number of food intolerances and so I am very conscious about what I put in my body. I believe consumers have the right to know what is in the food they purchase.

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Sent: Tuesday, March 19, 2013 11:33 PM
To: AGL Testimony
Cc: stine808@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christine Russo	Individual	Support	No

Comments: The public has the right to know what they are purchasing for consumption. I wholeheartedly support the labeling of genetically modified organisms.

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Sent: Tuesday, March 19, 2013 11:36 PM
To: AGL Testimony
Cc: kapua_naauao@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
kelly baniaga	Individual	Support	No

Comments:

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Sent: Tuesday, March 19, 2013 11:38 PM
To: AGL Testimony
Cc: anellenson@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ashley Ellenson	Individual	Support	No

Comments: Dear Senators, I urge you to amend HB174 - HD2 to include the labeling of all genetically engineered organisms including both local and imported produce. Please pass HB174 with amendments. It's imperative for consumers to have adequate knowledge to make responsible food choices. Thank you for your time, Ashley

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Sent: Tuesday, March 19, 2013 11:50 PM
To: AGL Testimony
Cc: kaipo@orcon.net.nz
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Kelley Kaipo Peters	Individual	Support	No
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Comments: Aa a Hawai'i national, I support the bill that: Imposes labeling requirements and import restrictions on imported genetically engineered produce. Authorizes labeling of non-genetically engineered food and creates a private right of action to enjoin violations. Effective July 1, 2112. (HB174 HD2) Companion:

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Sent: Tuesday, March 19, 2013 11:54 PM
To: AGL Testimony
Cc: epotzsurfer@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Potter	Individual	Comments Only	No

Comments: Dear Sentaors, I urge you to accept HB174 - HD2 with amendments.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 11:58 PM
To: AGL Testimony
Cc: mikehobbsjr@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mike Hobbs	Individual	Support	No

Comments: Dear Senators, I support the bill hb174hd2 with amendments to label local and imported GMO foods. Mahalo, Mike Hobbs

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Sent: Wednesday, March 20, 2013 12:00 AM
To: AGL Testimony
Cc: laniforster@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lani Forster	Individual	Support	No

Comments: Very much in support of GMO labeling!! Please let us choose the what food we eat!

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 12:00 AM
To: AGL Testimony
Cc: Mistyzone@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Monica	Individual	Support	Yes

Comments: We should have the right to know what we are eating

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Sent: Wednesday, March 20, 2013 12:00 AM
To: AGL Testimony
Cc: paacsnowflake@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Melody L Pascual	Individual	Support	No

Comments: Dear Senators of the Committees: I urge you to pass this bill into law. I would like greater transparency and insight into what is in our food supply. This is for the safety of our keiki and kupuna. The European countries are a lot more cautious with the science than us and already have banned GMOs. Thank you. Melody Pascual

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Sent: Wednesday, March 20, 2013 12:06 AM
To: AGL Testimony
Cc: iamsouza77@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ryan Souza	Individual	Support	No

Comments: We, the people, need to have a voice this time. It's ironic that we are fighting the Ag giants again for the protection of our land and families just like we did, but lost, in 1893. We are asking to hear HB174 without interference or influence from any of the biotech companies like Monsanto. Hear our concerns please! It's so important for us to have the choice to buy GMO or NON-GMO. At least hear the bill!! Aloha

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To: AGL Testimony
Cc: Libbycraft@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lauren Erickson	Individual	Support	No

Comments:

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To: AGL Testimony
Cc: johnandcarlina@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Carlina Mccue	Individual	Support	No

Comments: I believe that food labeling is important because a person should have the freedom to choose genetically engineered food or non-genetically engineered food. The individual should be able to make his/her own choices!

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Sent: Wednesday, March 20, 2013 12:13 AM
To: AGL Testimony
Cc: kaimanapine@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kaimana Pinē	Individual	Support	No

Comments: I strongly support the required labeling of all GMO food products sold in Hawaii. No panic Go organic... Mahalo.

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Carolyn Ambrose	Business	Oppose	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:42 PM
To: AGL Testimony
Cc: greenhi3@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Phil Barnes	Individual	Support	No

Comments: I urge all committee members to vote in support of HB174DH2 to require the labeling of all imported food that contains GMOs. It does not matter if one is in favor or opposed to GMO products. We all have the right to know the composition of all foodstuffs before we purchase them. This is a simple truth in labeling issue. If agribusiness is proud of it's GMO products then it should be proud to label them as such. Thank you for your consideration.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:45 PM
To: AGL Testimony
Cc: mmevans@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Mary Morgan Evans	Individual	Support	No
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Comments: I strongly support HB174. I believe the public has clearly spoken, and we want to know whether the produce we purchase and consume is genetically modified.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 19, 2013 5:46 PM
To: AGL Testimony
Cc: mkelley323@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

Categories: Red Category

HB174

Submitted on: 3/19/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Mary Lu Kelley	Individual	Support	No
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Comments: Aloha, I am a strong supporter of HB174. I support having GMO Labeling in Hawaii effective immediately. This is such an important issue and I thank the Senate Health, Ag, and Consumer Protection Committees of Senator Green, Nishihara, and Baker for hearing this bill right away. Let the people of Hawaii make informed decisions about what we eat by labeling GMOs in our food. You must make a reasonable but early timeline for this law to go into effect. This is you and me but even more so for our children and grandchildren who are being effected by what they eat as they grow up their bodies. Pass this bill with teeth today!! Thank you!

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Sent: Wednesday, March 20, 2013 12:15 AM
To: AGL Testimony
Cc: Lauryn@poi.org
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lauryn Galindo	Individual	Support	No

Comments: This bill is essential for the freedom of the people of the Islands! Please support us!

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 12:18 AM
To: AGL Testimony
Cc: amybfromcali@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Bowman	Individual	Comments Only	No

Comments: TESTIMONY SUPPORTING HB174, HD2 As a consumer, I have a RIGHT to know what I am purchasing. I DO NOT want to eat genetically modified food as I believe it to be a health hazard. In America, we have the right to our own beliefs. I have the right to make the choice to stay away from genetically modified food FOR MYSELF. I do not want to be dictated to by the government I ELECT that I should be kept unaware of what I am purchasing. I feel very strongly about this issue. The FACT that the companies who produce genetically modified food want to KEEP CONSUMERS IN THE DARK about their products only proves to me further that GM food is hazardous to my health. The health and safety of the residents of the state of Hawaii is on the line and I do not believe that the profits of huge corporations are more important than people. If you choose to side with the people who voted to put you where you are today, it is your DUTY to look after their well being. I would like for the bill to pass with TWO AMENDMENTS: : 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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Sent: Wednesday, March 20, 2013 12:31 AM
To: AGL Testimony
Cc: tvandever76@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Timothy Vandever	Individual	Support	No

Comments: COMMITTEE ON AGRICULTURE Senator Clarence K. Nishihara, Chair Senator Ronald D. Kouchi, Vice Chair COMMITTEE ON COMMERCE AND CONSUMER PROTECTION Senator Rosalyn H. Baker, Chair Senator Brickwood Galuteria, Vice Chair COMMITTEE ON HEALTH Senator Josh Green, Chair Senator Rosalyn H. Baker, Vice Chair RE: HB174 HD2 Measure Title: RELATING TO FOOD LABELING. Report Title: Genetically Engineered Organisms; Produce; Labeling; Import Current Referral: AGL/CPN/HTH, WAM Thursday, March 21, 2013 9:00am Conference Room 229 State Capitol 415 South Beretania Street I suggest that the committee(s) amend HB174 HD2 in three ways. 1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) I am also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. I suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) I also recommend that Section 9 be amended to take effect 1 July 2014. The AG's office has raised three main concerns around the current wording of the HB274 HD2. For a detailed response to these concerns, please refer to the Memo by Paul Achitoff, March 17, 2013.

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To: AGL Testimony
Cc: evernw@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Evern Williams	Individual	Support	No

Comments: Residents of Hawaii have a right to know what is in their food. Please represent your people and support the passage of this bill.

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Sent: Wednesday, March 20, 2013 12:42 AM
To: AGL Testimony
Cc: marthasmith@alumni.iastate.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Martha Smith	Individual	Oppose	No

Comments: I oppose the unnecessary and unneeded mandatory labeling of genetically modified food.
Mahalo nui loa.

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To: AGL Testimony
Cc: gotonsbs@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robert B. Smith	Individual	Support	No

Comments: Dear Legislators - Why would you deny me the right to know what is in the food I am eating. That seems like a basic human right. If my body is my temple then I should know what I am putting into it. When you go for surgery you are told the risks involved and can choose to proceed or not to proceed. Any drug warns you of possible side effects. Are my childs pajamas flammable? I just want to know what I am eating so I can decide if I want to eat it or not. When I eat Fritos I know they are GMO and I may or may not eat them, but at least it is up to me to make the choice.

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Sent: Wednesday, March 20, 2013 12:58 AM
To: AGL Testimony
Cc: angelavideotron@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Angela Breene	Individual	Support	No

Comments: RE: HB174 - in strong support with amendments Aloha Senators, Thank you for the opportunity to testify in strong support of HB174 with amendments to mandate the labeling of genetically modified organism or "GMO" produce both local and imported. I avoid GMO foods because of food allergies that I personally experience, and because of legitimate peer reviewed studies that show GMO chemicals residue in human blood and stomach and intestine, tumors and sterility. Currently studies on safety are voluntarily submitted by the biotech industry to the FDA. As FDA's policy Section 402 (a)(1) states, "the act imposes a legal duty on those who introduce food into the marketplace, including food derived from new crop varieties, to ensure that the food satisfies the applicable safety standard." (http://www.eufoodpolicy.com/cgi-bin/view_article.pl?id=5590) We have a right to know what is in our food, and the Federal Government is not stepping up to the plate. The State of Hawaii has the opportunity to protect our health and lead the way for state GMO labeling requirements which will create urgency for a GMO labeling requirement at the federal level. Congresswoman Patsy Mink as well as Senators Akaka and Inouye have all taken legislative action in support of GMO labeling - let's stand with them! We need labeling to make informed and educated choices about our own health and to support healthy, preferably organic agricultural practices. Hawaii citizens are taking action on this issue like never before and in record numbers. The only people testifying against labeling are PAID by the biotech industry as employees or lobbyists. We are watching our legislators closely on this issue to see who you are really representing! I urge you to amend and pass HB174 to start labeling all local and imported GMO foods in 2014. Mahalo, Angela Breene Haleiwa, HI

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Sent: Wednesday, March 20, 2013 1:15 AM
To: AGL Testimony
Cc: neswmusic@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rick Morse	Individual	Support	No

Comments: I want to know the genetic make up of the food I eat. Is that too much to ask?

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To: AGL Testimony
Cc: mmulhall@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Mulhall	Individual	Support	No

Comments: Please support clear labeling of ALL consumer products. This includes GMO foods. Those of us with various allergies need to be able to track ingredients. In addition, all consumers are entitled to clear information. Mahalo for supporting clear labeling of all foods. Mary Mulhall

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Sent: Wednesday, March 20, 2013 1:26 AM
To: AGL Testimony
Cc: synergyluna@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Luna Carlisle	Individual	Support	No

Comments: The will of the people is clear: label all gmo! We trust legislators to represent the people who elected them, not the deep pockets and lobbyist for poison profiteers! Its a good start towards banning gmo and evicting monsanto/syngenta/dow from hawaii forever. please be proactive, because Consumers have a right to know whether the food they are eating is produced using genetic modification techniques • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) • Request that the bill be amended to include labeling of Hawaii produce that is GMO

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To: AGL Testimony
Cc: hawaiianstyle@rocketmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robert "Kealoha" Domingo	Individual	Support	No

Comments: Aloha committee members, I am in strong support of labeling of all genetically modified foods in Hawaii. As a husband and father to four sons, i strongly feel that it is the public's right to know and choose what they are consuming and feeding their families and loved ones. Studies have shown that GMO's can cause cancer, sterility and birth defects in lab rats. If companies who produce and profit from GMO's feel that they are safe, then they should have absolutely no problem supporting the labeling of them. LABEL ALL GMO PRODUCTS AND PRODUCE!! I support HB 174. Mahalo, Robert Kealoha Domingo

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 1:30 AM
To: AGL Testimony
Cc: dubieldesign@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rexann Dubiel	Individual	Support	No

Comments: Please support labeling of GMO foods in Hawaii for all foods including produce that is grown here. We, the people, have a right to know what we are eating. Listen to 62 other nations around the world who have not just labeled GMO's foods, but banned them entirely. As a teacher and mother, I am an advocate for children, children who cannot vote. 92% of the people who responded to the Star Advertiser poll last week are calling for labeling of genetically modified food. Listen to the people. Do your job. You were elected to represent your constituents. Do it and support HB174. Watch the trailers to the documentary, GENETIC ROULETTE, by Dr. Jeffery Smith, so you are informed as to the negative impacts of GMO foods on humans, animals, food, and the environment. Aloha.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 1:37 AM
To: AGL Testimony
Cc: Juliamccfun@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Julia McCormick	Individual	Support	No

Comments: Aloha, Please pass this, but amend it to include Hawaii produce. I testified prior 2xs, and will try to come again. It is our families, your ohana. Your voters. Amen, Julia McCormick

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 1:42 AM
To: AGL Testimony
Cc: tomborg00@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tom Berg	Individual	Support	No

Comments: To the Senators against this bill...when was the last time you looked at a expiration date on products you consumed? Expiration dates on particular foodstuffs is for the consumers' benefit and has nothing to do about studies, additives, or otherwise...it's simply the right thing to do to enhance the consumers' purchasing power and ability to choose for themselves how long they should, as a suggestion, a guidance, hold on to the product for consumption before discarding it. Many people eat foods after the expiration date, but do not get sick. No one has died from eating eggs or drinking milk past the suggested expiration date to my knowledge in Hawaii, but that information is still put on our food for a reason. Why? It costs money to do it- putting on an expiration date on food. If you are against this bill, then you should stop reading labels altogether and just wing it hoping for the best. However, this bill is not about you and your own buying habits, but about us. It is about your constituents in the vast majority that want this information for reasons we deem important to us.....just like I am certain you look for expiration dates. Please, if you are against this measure, don't stand in the way of others who want to know...you can simply ignore the label, just like turning off the radio or television channel when you don't like the programming. Give us the power to make these choices ourselves. To Senator Baker, imaging the days when women did not have the right to vote. Opponents back in the day who were blocking this right, could have been spewing statements like,"It will cost the people money to print all these extra ballots for women. No one can prove women are dying by not being able to vote, or that they get sick from not voting, or that such quantifiable evidence of ill-will sentiment has been cast upon them by not having the right to vote." Women were given the right to vote because leaders eventually discarded the monetary issue. They discarded any studies proving or not proving harm to women by not letting them vote. This right to know measure, HB174, is just as important as women, minorities, and civil rights being advanced for equality. History books will tell the tale one day of who and what arguments were made against the right to know movement at this hearing today...please, for the naysayers who refuse to pass this bill, do the right thing and divorce yourselves from the campaign donations /biotech ventures that make you look ignorant and bought off, like a politician against women voting, against blacks voting, That is what a no vote is/symbolizes on this measure before you today. A NO VOTE is a vote against civil rights to freedom of information and blockage of individual liberty, of the right to make informed decisions when it comes to purchasing power. We have the lemon law for a reason....don't blow your opportunity to promote justice and fair play for the consumer. MAHALO for the opportunity to submit testimony in FAVOR of HB 174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:00 AM
To: AGL Testimony
Cc: lpcfarms@ctiwireless.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leon Corzine	Individual	Oppose	No

Comments: This is a badly written bill that only provides confusion and cost to consumers.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:04 AM
To: AGL Testimony
Cc: jerry.steiner@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jerry Steiner	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:04 AM
To: AGL Testimony
Cc: jerry.steiner@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jerry Steiner	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:06 AM
To: AGL Testimony
Cc: lboege@charter.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lee Boege	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:12 AM
To: AGL Testimony
Cc: esurfer@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marielle Leeds	Individual	Oppose	No

Comments: Please AMEND Bill to INCLUDE label of all Hawaii grown produce! Also, ALL imported produce and not just the few selected items stated in the Bill and it's horrible current Amendment. Mahalo for labeling ALL foods that are GMO in Hawaii. We have a right to no what food is genetically modified.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:15 AM
To: AGL Testimony
Cc: emadden@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Madden	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:16 AM
To: AGL Testimony
Cc: lboege@charter.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lee Boege	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:20 AM
To: AGL Testimony
Cc: trsqualit001@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joe Foboneski	Individual	Comments Only	No

Comments: Please, we have a right to know. Our constitutional rights should come before those of Monsanto and the like. Their record speaks for itself. Don't allow Hawaii to become another hub for their antics. At least set the example for other states, as we have with things like smoking, minimum wage, renewable energy and health care. Monsanto means us harm. They should be required to at least label their products. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:23 AM
To: AGL Testimony
Cc: Dave.Weydert@Monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Weydert	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:27 AM
To: AGL Testimony
Cc: longest001@charter.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Teri Longest	Individual	Oppose	No

Comments: I oppose this bill, HB174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:30 AM
To: AGL Testimony
Cc: svickery@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Vickery	Individual	Support	No

Comments: GMO Labeling is a necessity for all families to know what they are feeding their family. Do the right thing and support HB174. Mahalo!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:32 AM
To: AGL Testimony
Cc: ohmesjk5@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shawn	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:34 AM
To: AGL Testimony
Cc: mauibrad@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brad Parsons	Individual	Support	No

Comments: Label GMO's. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:29 AM
To: AGL Testimony
Cc: fmohr@seedway.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Fred Mohr	American Seed Trade Association	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:14 AM
To: AGL Testimony
Cc: dterrell@sharpseed.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dustin Terrell	ASTA	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:40 AM
To: AGL Testimony
Cc: pmiller@amseed.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Pat Miller	American Seed Trade Association	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:54 AM
To: AGL Testimony
Cc: seiswirth@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Melissa Eiswirth	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:02 AM
To: AGL Testimony
Cc: lzardetto@att.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lizette Zardetto	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 2:56 AM
To: AGL Testimony
Cc: pestow@indianacrop.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Pestow	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:08 AM
To: AGL Testimony
Cc: g_rolandelli@icloud.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gabriel Rolandelli	Individual	Oppose	No

Comments: If price of food will go up just because some people want to know if it's GMO then i don't want it to happen. I guess if they buy "organic" food, by definition they know it's not GMO and that'd be enough. I am strongly in favor of GMO crops because they are the ones that will help the world to produce enough food, they help to prevent the use of insecticides and herbicides, they expand the scope of places where crops can be planted (drought resistance plants), etc, etc. No one ever proved a GMO plant is harmful, there are a lot of ways of polluting our environment much worse than a hypothetical problematic GMO and i think that's what we need to focus on: GMOs will definitely help to reduce pollution and enable a better life in the world. Thanks Gabriel Rolandelli

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:13 AM
To: AGL Testimony
Cc: deford@indianacrop.org
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joe Deford	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:16 AM
To: AGL Testimony
Cc: kamakaziwasabi@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tara Hornstein Bowman	Individual	Comments Only	No

Comments: I believe given the possibility of negative side effects and the obvious negative side effects to our farmers and our environment we should have the ability to boycott genetically modified foods. Especially those produced by Monsanto, our era's super vilan. Thank you

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:16 AM
To: AGL Testimony
Cc: amywinters@capitol-strategies.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Winters	Individual	Oppose	No

Comments: GMO derived food is safe and there is no need to label it. Those products that are certified organic can label that they are GMO free to give consumers wanting that an option. This is a bad precedence to set and an unscientific expensive exercise in futility. Please oppose this bill.
Thanks!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:23 AM
To: AGL Testimony
Cc: george.clements34@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
George Clements	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:25 AM
To: AGL Testimony
Cc: christa_chancellor@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christa Chancellor	Individual	Oppose	No

Comments: No proven health benefits or detriments for GMO and labelling would only confuse consumers and add unnecessary cost

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:30 AM
To: AGL Testimony
Cc: stacymck66@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stacy Acton	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:36 AM
To: AGL Testimony
Cc: kali_mae74@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Amanda	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:46 AM
To: AGL Testimony
Cc: kellierbray@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kellie Bray	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 3:56 AM
To: AGL Testimony
Cc: dpwether@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Deric	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:04 AM
To: AGL Testimony
Cc: rdenhart_ista@ilcrop.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Denhart	Individual	Oppose	No

Comments: Pourly written, and unnessary Bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:15 AM
To: AGL Testimony
Cc: djblackburn@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Donald Blackburn	Individual	Oppose	No

Comments: I oppose this type of regulation. This bill is extremely poorly written and will only add costs to food in Hawaii, where costs are already very high. This bill will also have a remendous negative effect on the industry in Hawaii. If passed, investment in Hawii will decrease and companies will provide fewer new jobs and will likely eliminate jobs. Please consider this strongly as you vote.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:23 AM
To: AGL Testimony
Cc: chucdeb1@frontiernet.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Chuck Spencer	Individual	Oppose	No

Comments: Science does not show any significant difference between Genetically Modified food crops and organic. We must stay on a science base for decision making.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:30 AM
To: AGL Testimony
Cc: rdhanse@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ryan Hanselman	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:30 AM
To: AGL Testimony
Cc: ed.yohn@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ed Yohn	Monsanto	Oppose	No

Comments: My love for Hawaii goes back farther and is deeper than my career in the seed industry. I would not wish anything adverse for Hawaii or its people. My request is to consider the impact this will have on industry that is critical to Hawaii's economy & growth. Listen to truth and common sense; GMO's have not adversely affected people or the environment. Thank You

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:35 AM
To: AGL Testimony
Cc: jwgray2006@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jim Gray	Individual	Oppose	No

Comments: There is no scientific justification for labeling of any food derived from new plants that FDA finds are equivalent to existing plants. We rely on the robust evaluations by the regulatory authorities showing there is no harm. There is no need for labeling.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:36 AM
To: AGL Testimony
Cc: geschultzk@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gary Schultz	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:41 AM
To: AGL Testimony
Cc: keith.o.conrad@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
keith conrad	Individual	Oppose	No

Comments: I urge you to understand the gravity and far reaching consequences of what has been proposed. Clearly personal agendas are behind this poorly written bill while I ask you to view these products/technologies as tools to supply a safe and abundant food supply for a growing population.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:46 AM
To: AGL Testimony
Cc: kbbohning@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kermit Bohning	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:46 AM
To: AGL Testimony
Cc: rkayelny@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robin Kaye	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:47 AM
To: AGL Testimony
Cc: shane.mcfadden.sm@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shane McFadden	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:47 AM
To: AGL Testimony
Cc: horans1@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joe Horan	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:48 AM
To: AGL Testimony
Cc: dbenning@woh.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David Benning	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:51 AM
To: AGL Testimony
Cc: rehbergliz@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Liz Rehberg	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:52 AM
To: AGL Testimony
Cc: jabnm@att.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
April Martinez	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:53 AM
To: AGL Testimony
Cc: abeb@starrockfarms.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
abe barley	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:53 AM
To: AGL Testimony
Cc: dentonbailey14@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Denton bailey	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:56 AM
To: AGL Testimony
Cc: Rekuhl02@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rick Kuhl	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:58 AM
To: AGL Testimony
Cc: brock.behme@lgseeds.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brock	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:58 AM
To: AGL Testimony
Cc: brett.p.wilson@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brett Wilson	Monsanto	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:58 AM
To: AGL Testimony
Cc: pthurston@foothill.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
patricia thurston	Individual	Support	No

Comments: Labels for Hawaii. Common Sense.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 4:59 AM
To: AGL Testimony
Cc: pat.s@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Patrick Snyder	Individual	Support	No

Comments: To the Committees on Agriculture, Commerce and Consumer Protection, and Health, I urge your support on HB174 that requires the labeling of genetically modified produce and restricts the import of the the same. Individuals who purchase produce deserved to be informed about items they procure and consume. Just as choices are made to buy organic produce and locally grown produce, consumers should be able to make the choice to buy non-GMO or GMO produce if they believe that one may be more healthy or better for them. I further request that the bill later be amended to including labeling of locally grown hawaiian produce that is from GMO stocks. Additionally, I support tighter restrictions on the import of GMOs to this fragile ecosystem. Genetically modified crops create potential risks to our islands as they can increase toxic herbicide use and could become invasive. Mahalo for your consideration of this bill that gives the people the ability to choose and protects our land, //Signed Patrick Snyder Kailua, HI

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:00 AM
To: AGL Testimony
Cc: hecht.deb@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Debbie HEcht	Individual	Support	No

Comments: Aloha- please support this measure, it is a step in the right direction. In addition, I would ask that all foods, not only imported produce disclose if there is any genetic modified ingredients contained. This is important in prepared canned or frozen foods because of the use of GMO ingredients. Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:02 AM
To: AGL Testimony
Cc: foxhollowranch@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Richards	Individual	Oppose	No

Comments: Please make your decision based on science not emotions. Consider the economic impact your decision will have on the economy in Hawaii and the mainland US. Remember labeling options already exist. Products may be labeled non-GMO under current law. Consumers may choose to purchase organic or non-GMO products. There is no reason to force the rest of the population to pay for the cost of labeling.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:06 AM
To: AGL Testimony
Cc: christian.r.cloeter@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christian Cloeter	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:06 AM
To: AGL Testimony
Cc: jeremy.johnson@lgseeds.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeremy Johnson	Individual	Oppose	No

Comments: As the world population increases and the United States is relied upon so heavily to feed the people of it, we need to be able to utilize the acres we have at the highest productivity levels possible. Genetic modification (enhancements) to our foodstuff products is the only viable method at this point and time. A simple question for you....Would you rather have high quality food products available free of insects, diseases, with no chances of harmful pesticide residuals, or go back to needing to spray a variety of pesticides multiple times in hopes of giving consumers an edible product? Thank you for your time.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:08 AM
To: AGL Testimony
Cc: sally.coulter@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sally Coulter	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:18 AM
To: AGL Testimony
Cc: Nicolekanani@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole Nakamura	Individual	Support	No

Comments: I support this measure. I would like ALL foods produced using genetic modification techniques, both imported and Hawaii-grown, to be labelled as such. As a mother of two young children and someone who is mindful of the food choices I make, this bill would be a step toward greater consumer awareness and help me to make informed choices about the foods I purchase and the foods consumed by my family.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:19 AM
To: AGL Testimony
Cc: Edward_langston@bus.emory.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Langston	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:19 AM
To: AGL Testimony
Cc: Matt.goedeke@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matt goedeke	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:22 AM
To: AGL Testimony
Cc: Jkulwicki@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Justin Kulwicki	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:29 AM
To: AGL Testimony
Cc: dbrown@rr1.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dennis Brown	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:30 AM
To: AGL Testimony
Cc: csk82@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Corby Kleiss	Individual	Oppose	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:34 AM
To: AGL Testimony
Cc: Adam.mcvey@lgseeds.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Adam McVey	Individual	Oppose	No

Comments: I oppose this bill, and would encourage you to vote it down

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:40 AM
To: AGL Testimony
Cc: 26gtimmaui@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
tim garcia	Individual	Support	No

Comments: I am truly dissapointed in the way this issue has been handled by Senator Roz Baker. This bill in my opinion is simple label the GMO and let us decide if we will put this product in our bodies. To hide behind legal mumbo jumbo when the majority of the people you represent who have elected you is a shame. Hawaii should take the lead on this issue not wait for other states ! Its sad as I expected more from her on this issue very very dissapointed. With that said we now again have the opportunity to do the right thing and fix this bill to include local GMO and lets pass it.. If you respect the people of Hawaii you will do the right thing for them, I will be waiting here on Maui to hear that you have. Thank You Tim Garcia

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:45 AM
To: AGL Testimony
Cc: gwhoward@ncsu.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
George Howard	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:46 AM
To: AGL Testimony
Cc: pittmanpaul@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Pittman	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:47 AM
To: AGL Testimony
Cc: katesears@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Kathy SearsTancayo	Individual	Support	No
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Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 5:50 AM
To: AGL Testimony
Cc: dbbrubeck@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dan Brubeck	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:52 AM
To: AGL Testimony
Cc: shannonkona@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph	Individual	Support	No

Comments: Please pass this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:53 AM
To: AGL Testimony
Cc: lfoster@heartofhawaii.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa R Weiland Foster	Individual	Oppose	No

Comments: With all due respect to committee members, this is bad legislation. The bill is unfair and unconstitutional. Please do not pass HB174.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:53 AM
To: AGL Testimony
Cc: blinin@frontieraginc.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brian Linin	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:54 AM
To: AGL Testimony
Cc: mcfarland@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Scott McFarland	Individual	Oppose	No
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Comments: This Bill really serves no practical purposes. I am surprised the Hawaii Senate is wasting its time on this pure political theater. Please focus on jobs and the economy.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:55 AM
To: AGL Testimony
Cc: wchrist@westcentralinc.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Wayne Christ	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:56 AM
To: AGL Testimony
Cc: sarahentm@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Thompson	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:57 AM
To: AGL Testimony
Cc: busybody6@live.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Terri Matsuoka	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:58 AM
To: AGL Testimony
Cc: teamdrake@comcast.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Drake	Individual	Oppose	No

Comments: Please vote no on this bill -- it is not necessary, costly to consumers, hurts small farmers and will cost the state millions to enforce. Please keep all choices available for consumers in the marketplace.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 5:59 AM
To: AGL Testimony
Cc: bill.oglesby@brandtmonterey.co
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bill Oglesby	Brandt Monterey	Oppose	No

Comments: We must be very careful how we draft this type of proposal. The simple labeling is not the problem. Where does it stop!!!! When all is legal, we should not have to go further

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:00 AM
To: AGL Testimony
Cc: conreyw@kochind.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
William F.Conrey	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:06 AM
To: AGL Testimony
Cc: Fredsk883@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Fred McConkey	Individual	Comments Only	No

Comments: People have the right to know why they are eating and what kind of agriculture they are supporting. The bio tec companies are destroying our planet

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:10 AM
To: AGL Testimony
Cc: anniemoriyasu@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ann Moriyasu	Individual	Support	No

Comments: Aloha Chairmen and Committee Members: I am writing in support of HB174. It is high time, no, overdue, that Hawaii offer its citizens the reassurance and ease of GMO labeling. We have no problem with other warning labeling (smoking, drinking) so what is holding this bill up? Please act now. Be on the right side of history. Do not satisfy the Monsantos of the world. Be pono!.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:12 AM
To: AGL Testimony
Cc: alohamelissag@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Melissa Anderson	Individual	Support	No
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Comments: Please support HB174. We deserve the right to know what is in the food we are eating. Help to represent the health of the people in Hawaii. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:13 AM
To: AGL Testimony
Cc: uluusurf@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
brett gobar	Individual	Support	No

Comments: plz support hb174 with ammendments to; 1) include local gmo produce so as not to violae the commerce clause, and 2) amend to clearly define engineered products to prevent consumer confusion so hawaii shoppers are clear whether the product is genetically engineered or NOT. i am small organic farmer, training interns to develope and operate organic farms and am opposed to gmo's , particularly when resulting crops wont produce SEED we can use for future crops; THIS IS A DANGEROUS TREND, putting the future of farming (seed) in the hands of a few large corporations ! respectfully submitted, brett gobar, owner , mgr, finca ulu de paz

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:14 AM
To: AGL Testimony
Cc: nations0229@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joshua Nations	Individual	Oppose	No

Comments: Why is the Hawaii Senate hearing a bill that the Attorney General has already indicated is unenforceable and unconstitutional? Please focus on jobs.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:16 AM
To: AGL Testimony
Cc: klhorton@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Keith Horton	Individual	Oppose	No

Comments: This bill is unconstitutional at the Federal level. The FDA, EPA, and ADA all agree that GMO foods are no different than their non-gmo counterparts. Consumers that do not want GMO food simply need to purchase foods that are labelled organic.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:18 AM
To: AGL Testimony
Cc: m05q@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marcelo Queijo	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:18 AM
To: AGL Testimony
Cc: hartson.doak@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Hartson Doak	Individual	Support	No

Comments: If in doubt, I'll not buy it. I no longer buy corn or soy products unless labelled, organic. Labeling GMO products will allow me a broader, non organic, choices.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:19 AM
To: AGL Testimony
Cc: theboxgarden@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Greg Stidham	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:20 AM
To: AGL Testimony
Cc: heidihowani@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
heidi howard	Individual	Comments Only	No

Comments: I am writing in behalf of the bill regarding labeling all GMO products. The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:22 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Alejandro Magno	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 6:22 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Anthony Kauahi	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:23 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
George Lumabao	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

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Submitted By	Organization	Testifier Position	Present at Hearing
Kyle Deperalta	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 6:25 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
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Submitted By	Organization	Testifier Position	Present at Hearing
Franklin Silva	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:25 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

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Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David Shea	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:26 AM
To: AGL Testimony
Cc: jenniferjim38@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
jennifer jimenez	Individual	Comments Only	No

Comments: I feel that every person deserves the right to choose what they eat. I urge you to make that possible for our future. I believe that if our opinions and choices do not change. The people will rise together and vote for someone else next election that does listen and wants things to change.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:26 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Haumea	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:26 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dennis Alicante	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:27 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John Butac	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:27 AM
To: AGL Testimony
Cc: lynlie@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lynlie Waiamau	Individual	Support	No

Comments: I am a Horticulturist for the State of Hawaii on the island of Kaua'i, but testify in support of HB174 as a private individual. I support labeling of all genetically engineered crops and by products but request that this bill be amended to include locally grown produce, not just imports. Secondly, the bill needs to be amended to change the effective date from the year 2112 to 2014. I believe in the democratic principles of informed choice which HB174 will provide to the many consumers who want it. We can't wait for the federal government to act, consumers want this change now. I believe, as do many others, that this a health and safety issue that has to be addressed today, which is why we can't wait 99 years for HB174 to go in to effect. I testify today on behalf of myself, my family, my grandchildren and all future generations of my 'ohana to come.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:28 AM
To: AGL Testimony
Cc: darin@manhattan.coop
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Darin Marti	Individual	Oppose	No

Comments: Bills such as this potentially will significantly increase food prices for citizens in this state. Once a bill such as this passes, it encourages activists around the world to push for similar bills in other states and countries. HB174 is a very bad precedent to set. Not only will food cost increase, but without gmo crops, the use of pesticides will increase to help control weeds and insect pests that gmo crops are resistant too. Please do not allow this bill to pass. Thank you!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:28 AM
To: AGL Testimony
Cc: keonenakoa@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Keone Nakoa	Individual	Support	No

Comments: HB 174 and its is critical to the health and well-being of the people of Hawaii. People should have the right to know what kind of foods they are putting in their bodies. I urge the committee to take swift action on this measure. Mahalo.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:28 AM
To: AGL Testimony
Cc: emersons@hawaii.edu
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shane	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:35 AM
To: AGL Testimony
Cc: tstalkamp@hagie.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Travis Stalkamp	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:36 AM
To: AGL Testimony
Cc: pr@marylandgrain.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie Adelhardt	Individual	Oppose	No

Comments: There is no evidence that GMO foods carry any more risks than conventional foods and crops, according to USDA, FDA and EU Research Directorate. Critics of GMO crops are using regulatory systems to slow down the use of the technology, which in food production, will only increase world food hunger.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:37 AM
To: AGL Testimony
Cc: likowallace@ymail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Faye L. Wallace	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:38 AM
To: AGL Testimony
Cc: tlhescott@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tracy Hescott	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:38 AM
To: AGL Testimony
Cc: wallaceohana@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Charlton K. Wallace	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: Kennett, Mark (MA) [MAKennett@dow.com]
Sent: Wednesday, March 20, 2013 6:23 AM
To: AGL Testimony
Subject: oppose HB174

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Kennett	Individual	Oppose	No

Mark Kennett

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:40 AM
To: AGL Testimony
Cc: kidpoor@sit-co.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dan Mitchell	Individual	Oppose	No

Comments: This proposed legislation is ludicrous. Food safety concerns with GMO materials are blown way out of proportion.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:41 AM
To: AGL Testimony
Cc: tony@manhattan.coop
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tony Hieger	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:44 AM
To: AGL Testimony
Cc: pattio57@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Patricia Osborne	Individual	Support	No

Comments: support gmo labeling in our food!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:45 AM
To: AGL Testimony
Cc: Kekamaboy@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Briann Starkey	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:46 AM
To: AGL Testimony
Cc: jmoch@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jesse Moch	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:50 AM
To: AGL Testimony
Cc: scarr@growmarkfs.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Steven Carr	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:50 AM
To: AGL Testimony
Cc: kanika.apa@live.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dennis EVANGELISTA	Individual	Support	No

Comments: I Support HB 174 to make GMO Labeling Mandatory !

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:51 AM
To: AGL Testimony
Cc: stevechristensenhawaii@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Christensen	Individual	Oppose	No

Comments: Believe the science and not the internet! I can't afford to have my food prices increase.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:52 AM
To: AGL Testimony
Cc: mark@unitedservices.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Morrissey	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:54 AM
To: AGL Testimony
Cc: creekertodd@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Todd Anderson	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:55 AM
To: AGL Testimony
Cc: derowitsch@nckcn.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lloyd Derowitsch	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:57 AM
To: AGL Testimony
Cc: kpcamallirilangtad@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Khelsie Camalliri Langtad	Individual	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:57 AM
To: AGL Testimony
Cc: sungods79@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sol Kahn	Individual	Support	No

Comments: Aloha, I am a resident born in Hawaii. I am a father. I am proud to be from these amazing islands. AND I VOTE. I am not proud of what these chemical biotech companies are doing to the aina. This is not pono and does not work. At the VERY LEAST we need GMOs to be labeled. I very very strongly believe that I have a right to know whats in my food and the FOOD THAT I FEED TO MY CHILD! If you oppose this bill I will not support you in the next election, that is a promise. This is our right, to have the choice. To have the choice and know whats in the food that we buy. If its horse meat wouldn't you want to know? If its GMO then I want to know! More and more studies are coming out showing the dangers and health risks of GMOs. Ignorance is NOT an excuse! Thank you for your time. Sol Kahn,

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:57 AM
To: AGL Testimony
Cc: fitzz@maui.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John FitzGerald	Individual	Oppose	No

Comments: The State of Hawaii can no longer afford these types of regulations. The business community is already drowning in unnecessary regulation and the citizens of Hawaii can not afford additional regulation. Start reviewing existing regulations and eliminate the out dated and cleanup the rest.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:58 AM
To: AGL Testimony
Cc: hwilhelm@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Keoni Wilhelm	Individual	Support	No

Comments: Aloha, I am a law student and a school teacher. There was a time when tobacco companies said cigarettes were not harmful. The corporations said they were safe. People fought for decades just to get health warnings on them. It took years to bring to bear the mountain of long term evidence to show cigarettes are not only harmful, they kill people. Everyday a new study shows the growing body of evidence that GMO's are not only bad for us, they are slowly killing us. The sword also has two edges. While biotech companies poison the food, they also poison the land, water, and communities to create it. You can be the voice to tell these biotech co's that Hawaii is not for sale. You can allow the people to have a choice in what they eat. Thats all we want. Do not sell out for a few bucks to poison our children, grandchildren, and their children for generations to come. Please label your poison. 'A'ole GMO.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:59 AM
To: AGL Testimony
Cc: schmidtvineyardmgt@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer H. Schmidt	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:58 AM
To: AGL Testimony
Cc: Sarahfound@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Abbruzzese	Individual	Support	No

Comments: Please listen to this powerful and present voice. We are speaking with incredible importance, so please please please pass this bill!!! For the sake of integrity, our children, and doing the right thing.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:59 AM
To: AGL Testimony
Cc: anthjoal@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Anthony Allen	Individual	Comments Only	No

Comments: Please Support HB 174. Many of us in Hawaii are concerned that our food we buy is Not labeled if it has been GMO'd. Do not be swayed by the lobbying and money from Monsanto & Syngenta. We urge our Senstor R. Kouchi to push for passage of this bill. And also need the support of all members. Let's be the first state in the nation to require GMO labeling. The market chain, "Whole Foods" last week became the first grocery chain in the nation to require all its products be labeled GMO or not. Thank you for your time, support and "Yes" vote!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 6:59 AM
To: AGL Testimony
Cc: mkeene16@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Keene	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:00 AM
To: AGL Testimony
Cc: douglasvincent@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Personal_Testimony_HB174_March_2013.pdf

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Douglas L. Vincent	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:05 AM
To: AGL Testimony
Cc: jacquelyn.chappel@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jacquelyn Chappel	Individual	Comments Only	No

Comments: Non-GMO foods should not be required to label. They are already incentivized to advertise the fact that they are non-gmo since some people in the public would prefer to buy non-gmo products. *Genetically modified foods* are the ones who should be required to label. Even if they comprise the vast majority of our produce, there's nothing wrong with having GMO foods required to stick a sticker or even just a stamp on their produce. Instead of the "Made in Hawaii" stickers which are/were ubiquitous for some time, ag companies can replace it with a GMO sticker (or stamp). In the very least, a designated lot of produce could be labeled GMO in the description when it comes to the grocery store so when consumers go to the check the price and provenance, etc. of their produce, they can also see whether it is GMO or non-GMO. The fact that we do not have this option now is absolute madness. Consumers have the right to know if the food they are purchasing has been genetically modified or not. Ag companies are afraid to label their products for fear that consumers will buy less of their product. The bill that we should be hearing is a bill to require the labeling of *GMO foods*, not non-GMO foods. It is a discussion that is being muffled by big Ag and by certain senators who are being paid off by them. It is a travesty that the appropriate bill is not even being *heard* on the Senate floor.

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To: AGL Testimony
Cc: jowenhardy@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John Hardy	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:06 AM
To: AGL Testimony
Cc: george.n.gough@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
George	Monsanto	Oppose	No

Comments: Please vote "No" on this poorly written and ill-conceived bill to mandate labeling of genetically modified foods. It is promoted by fear mongers, not those who are truly intersted in scientific debate, discussion or reason.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:06 AM
To: AGL Testimony
Cc: hshields@lvf.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Howard Shields	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:07 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Fischer	Individual	Oppose	No

Comments: This bill does not serve a practical purpose. Please focus on jobs and economy instead of political posturing!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:07 AM
To: AGL Testimony
Cc: DianaLaBedz@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Diana LaBedz	Individual	Support	No

Comments: WE are at a place in our planetary history where the protection of air, water, land and food need to be protected from poisons. Each person is responsible for doing their part in the cleaning up of ALL the toxins. If you can't walk with us, please step aside. Thank you

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:11 AM
To: AGL Testimony
Cc: mrb@hawaiiink.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jose Bulatao, Jr.	Individual	Support	No

Comments: It is essential for us here in Hawaii to be especially mindful of our food sources because we live in the most isolated spot on earth. To that end, I support the labeling of our food sources for the following reasons: being informed; having the ability to make choices based on knowledge; for our health and well-being. It is the "pono" thing to do. Mahalo!

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Sent: Wednesday, March 20, 2013 7:09 AM
To: AGL Testimony
Cc: Janutouch@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maria Clark	Individual	Comments Only	No

Comments: Please label GMO For a healthier Aina and for our Children

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Sent: Wednesday, March 20, 2013 7:12 AM
To: AGL Testimony
Cc: Mana@ibehawaiian.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mana Kaleilani Caceres	Individual	Support	No

Comments: As a human being on this planet it is my right to know what is in the food/drink I am feeding to my family. Whether or not GMO is safe or morale is besides the point. To further allow companies to feed us things "hidden" in our foods is the ultimate betrayal to humanity. I support the labeling of GMO foods.

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Sent: Wednesday, March 20, 2013 7:14 AM
To: AGL Testimony
Cc: halapepper@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Helena Miguel	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:15 AM
To: AGL Testimony
Cc: pkb_1@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Booth	Individual	Support	No

Comments: STOP POLUTING KAUAI. You've all ruined the islands enough

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:16 AM
To: AGL Testimony
Cc: davehomcy@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Homcy	Individual	Support	No

Comments: We suggest that the committee(s) amend HB174 HD2 in three ways. 1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) We are also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) We also recommend that Section 9 be amended to take effect 1 July 2014.

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Sent: Wednesday, March 20, 2013 7:16 AM
To: AGL Testimony
Cc: Rkester1@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Renee Kester	Individual	Oppose	No

Comments: Please stop this now. It is not the view of the people of Hawaii, rather it is the rant from a very small but misinformed and poorly behaving portion of our population. Please be critical thinkers and do what is right. Trust those that have actually done the sound and solid research not the lies and propaganda. You have an opportunity to not only do the right thing but to not reward the unethical antics from the activist community. This bill would not only cost the consumer considerably but would then tie up more time and funds with further legal issues with the federal government. Your attorney general has clearly stated this. Please be responsible. Please do the right thing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:16 AM
To: AGL Testimony
Cc: jenni_h29@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer	Individual	Oppose	No

Comments: 1) State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for. California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! 2) GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. 3) Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free"

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:18 AM
To: AGL Testimony
Cc: waileleoakaka@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Aloha elected officials.doc

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leilani Digmon	Individual	Support	No

Comments:

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Sent: Wednesday, March 20, 2013 7:18 AM
To: AGL Testimony
Cc: cravegreens@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Crystal Thornburg	Individual	Support	No

Comments: We suggest that the committee(s) amend HB174 HD2 in three ways. 1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) We are also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) We also recommend that Section 9 be amended to take effect 1 July 2014.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:18 AM
To: AGL Testimony
Cc: robynheine@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robyn Heine	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: risademasi@grasslandoregon.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Risa DeMasi	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: hawaiiseedfarmers@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Phillipson	Individual	Oppose	No

Comments: is unconstitutional, who will regulate and enforce, and at what cost to whom - the consumer.

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Sexton	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:21 AM
To: AGL Testimony
Cc: chingl030@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lincoln Ching	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:21 AM
To: AGL Testimony
Cc: seedfarmerstestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kathy Haskins	Individual	Oppose	No

Comments: Mandatory labeling is the responsibility of the federal government. Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:22 AM
To: AGL Testimony
Cc: Ann.Yanagi@Monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ann Yanagi	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:22 AM
To: AGL Testimony
Cc: camandcodysmom@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Andi Robinson	Individual	Oppose	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:23 AM
To: AGL Testimony
Cc: weiguo.liu@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Weiguo	Individual	Oppose	No

Comments: State-based labeling policies will increase the cost of food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:23 AM
To: AGL Testimony
Cc: smwalk1@twcny.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Walker	Individual	Oppose	No

Comments: The world can not be fed on conventional agriculture let alone organic agriculture. Labeling GMO products will unfairly discriminate GMO products in the market place. At a time when our countries deficit is at a all time high the last thing that we need is more restricted marketing practices. WHO IS GOING TO POLICE THESE POLICIES and WHO IS GOING TO PAY FOR IT. Really, we have a lot more to worry about than labeling safe products and trying to scare consumers all for the CAUSE!!! Get Real!!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:23 AM
To: AGL Testimony
Cc: nloswa@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nathaniel Oswald	Individual	Oppose	No

Comments: Food is already expensive. Why continue to raise the price and lower availability? Once people learn to stop living in cities and grow their own food we can walk away from agricultural technology. And why we are at it, let's go back to how it was 120 years ago too. Give me a break... this is ridiculous. I've worked in the seed corn industry with direct exposure for 23 years, 5 to 6 days a week. I don't know anyone who has been harmed, and I feel fine. Why go back to increased chemical use and poor farm practice?

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:23 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
S	Individual	Oppose	No

Comments: GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:24 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Andrew Smith	Individual	Oppose	No

Comments: This is not something that needs to be legislated. If a company wants to use non GMO ingredients, they can add non GMO to the label and add value to thier product. Making everyone that uses GMO products label is much more burdensome than having non GMO products be labeled. There is no credible evidence that GMO is harmful to humans. This is not something that should be legislated.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:25 AM
To: AGL Testimony
Cc: douglas@konahawk.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Douglas Pittman	Individual	Support	No

Comments: Senators, I am a farmer from the Big Island. I strongly urge you to pass the bill. We deserve the right to know what is in our food. To put corporate interests above the transparency of our food system is just wrong. If you do not allow this bill to become law, I will work to see you are not re-elected. Our government should not be up for sale to the highest bidder. Hawaii could be a leader in sustainable agriculture, instead of the leader in toxic agriculture. Take a stand for a healthy Hawaii.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:25 AM
To: AGL Testimony
Cc: eric.hillis@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eric Hillis	Individual	Oppose	No

Comments: I think this bill passing would have a detrimental effect on the economy of the state as well as add an addition cost to the already high food prices here on the island.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:26 AM
To: AGL Testimony
Cc: cosmiccasita@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cheri Phillips	Individual	Support	No

Comments: the Studies speak for themselves... READ EACH ONE! you know in your heart that GMO is JUST WRONG! DO THE RIGHT THING FOR HUMANITY!!... unless you out to eliminate humanity... but then who will be your slaves then?? Over 130 Studies Regarding GMO Labeling <http://d3n8a8pro7vhmx.cloudfront.net/labelgmos/pages/34/attachments/original/GM-Crops-just-the-science.pdf?1321839924> American Academy of Environmental Medicine Position Paper on GMO <http://www.aaemonline.org/gmopost.html> Union of Concerned Scientists, High and Dry: Why Genetic Engineering Is Not Solving Agriculture's Drought Problem in a Thirsty World http://www.ucsusa.org/food_and_agriculture/our-failing-food-system/genetic-engineering/high-and-dry.html Scientists at the Department of Obstetrics and Gynaecology, at the University of Sherbrooke Hospital Centre in Quebec find pesticides in the blood of pregnant women and unborn babies. Traces of the toxin were found 93% of the pregnant mothers and in 80% of the umbilical cord blood. <http://www.ncbi.nlm.nih.gov/pubmed/21338670> Study linking GM maize to cancer must be taken seriously by regulators. Trial suggesting a GM maize strain causes cancer has attracted a torrent of abuse, but it cannot be swept under the carpet <http://www.guardian.co.uk/environment/2012/sep/28/study-gm-maize-cancer> Roundup Threat to Future of Food Safety by Microorganism Degradation Preventing Healthy Soil Conditions for Growth http://www.naturalnews.com/035221_Roundup_soil_health_food_supply.html US Geological Survey Studies by US Department of Interior Indicate Spread of Roundup Active Toxic Ingredient Glyphosate Through Water. 'Widely Used Herbicide Commonly Found in Rain and Streams in the Mississippi River Basin' due to use on GMO crops <http://www.usgs.gov/newsroom/article.asp?ID=2909> National Center for Biotechnology Information.gov Effects of Roundup(®) and Glyphosate on Three Food Microorganisms: Geotrichum candidum, Lactococcus lactis subsp. cremoris and Lactobacillus delbrueckii subsp. Bulgaricus. Roundup is considered á microbicide and inhibitor of growth in lower levels than agricultural application comparing glyphosate alone to Roundup and its effect on common bacteria used to start industrial cheeses and raw dairy products <http://www.ncbi.nlm.nih.gov/pubmed/22362186> Devastating Effects of Bayer Pesticide for GM Crops on Bee and Pollinating Insect Population <http://www.non-gmoreport.com/articles/february2012/insecticideforGMcorntoxicbees.php> Center for Food Safety Petition to the FDA with 1.1 million signatures, 55 Members of Congress Collect and Demand GMO Labeling, 36 GMO Labeling Bills Introduced in US, Nearly 50 Countries Require GMO Labeling <http://www.centerforfoodsafety.org/2012/03/27/record-breaking-one-million-public-comments->

demand-fda-label-genetically-engineered-foods/ 50 countries with over 40% of the world's population already label genetically engineered foods, *Link to the Mellman Survey Results showing a random national survey of 1000 Americans showing that 90% favor labeling and 5% oppose
<http://www.labelgmos.org/faqs> Genetically Engineered Food Labeling Laws Global Map
<http://www.centerforfoodsafety.org/ge-map/> Just Label It Regarding petition to the FDA of 1.1 million signatures to label GMOs 91% of the American people <http://justlabelit.org/fda-responds-to-1-1-million/> Thomson Reuters 2010 Survey of National Healthcare Consumers regarding Genetically Engineered Foods showing 93.1% of 100,000 surveyed want GE foods labeled
http://www.factsforhealthcare.com/pressroom/NPR_report_GeneticEngineeredFood.pdf University of Purdue Abstract Multiple Routes of GMO Associated Pesticide Exposure for Honeybees Living Near Agricultural Fields <http://www.purdue.edu/newsroom/research/2012/120111KrupkeBees.html>
Monsanto vs. US Farmers 2010 – Documents downloaded from Monsantoperformance.com meant to entice (or intimidate) potential seed buyers to choose GE seed, demonstrating the spread of contaminating GMO seed as Monsanto advertisement to potential GMO farmers demonstrates the lawsuits they have against “biopirate” farmers, the majority of whose fields are contaminated by GE seeds and will lose everything to Monsanto based on the company's track record. Blatantly advertising, “It's not worth the risk!” (to grow anything except our seed, or we will eventually contaminate your farm and sue you as we are suing these numbered offenders and you could lose everything simply by having a neighboring farm contaminated which we will call patent infringement including) threatening “Loss of technology license, loss of access to all traits, financial exposure up to \$500/acre, litigation costs and crop destruct” if farmers choose to not buy GE seed. They then use the “pretrial cash settlement” money to put young kids on the agritech career track.
<http://www.centerforfoodsafety.org/wp-content/uploads/2012/03/Monsanto-v-US-Farmer-2010-Update-v.-2.pdf> Statistics from the biotech industry indicating rapid contamination of conventional seed by GMO seed in US indicating GE monocropping on the near horizon http://www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/506.usa_cultivation_gm_plants_2009.html The Regulation of GMOs in Europe and the United States: A Case-Study of Contemporary European Regulatory Politics “Prince Charles also joined the public opposition to bioengineered crops. Stating that genetically-engineered foods take mankind into “realms that belong to God,” the Prince cited concerns about long-term consequences for the environment and human health. [48] Leading chefs in the UK announced their opposition, calling for a moratorium on GMOs. Food writers also launched a campaign against GMOs, calling genetic engineering the equivalent of “imposing a genetic experiment on the public, which could have unpredictable and irreversible averse consequences.” [49] Pictures of a “Frankenstein potato” appeared on the pages of The Economist.[50]”
<http://www.cfr.org/genetically-modified-organisms/regulation-gmos-europe-united-states-case-study-contemporary-european-regulatory-politics/p8688> Chicago Tribune May 2011 To clarify the misconception that there are plenty of grocery stores that sell all non-GMO food for those interested at this point all grocery stores contain GMOs – food does still need to be labeled regardless of the retailer - 2006 study for the Pew Initiative for Food and Biotechnology found that only 23 percent of women (the primary shopping decision makers) thought genetically modified foods were safe. The same Pew study found that only 26 percent of American consumers believed they'd ever eaten genetically modified food, while a 2010 survey by the International Food Information Council reported that only 28 percent of respondents knew such foods were sold in stores.
<http://www.chicagotribune.com/health/ct-met-gmo-food-labeling--20110524,0,5841902.story> New York Times Opinion on GMO Labeling April 3, 2012 Why Aren't G.M.O. Foods Labeled?
<http://opinionator.blogs.nytimes.com/2011/02/15/why-arent-g-m-o-foods-labeled/?ref=opinion2008>
Waimea Residents Sue Pioneer http://thegardenisland.com/news/local/waimea-residents-sue-pioneer/article_82ff2c3e-2632-11e1-9ca7-001871e3ce6c.html Syngenta Pesticides Poison Elementary School <http://www.islandbreath.org/2006Year/16-farming/0616-20WaimeaPoison.html>
Kauai Large Scale Die Off of Sea Urchins http://thegardenisland.com/news/local/large-scale-die-off-of-sea-urchins-discovered-off-kaumakani/article_16081484-5a1b-11e1-bca7-0019bb2963f4.html The

Most Toxic Pesticide You'll Soon Be Eating, Rodale, Emily Main <http://www.rodale.com/24-d-and-superweeds> <http://www.rodale.com/24-d-and-superweeds> Herbicide (2,4-D) Increases Insect and Pathogen Pests on Corn I. N. OKA and DAVID PIMENTEL Science 16 July 1976: 239-240. [DOI:10.1126/science.193.4249.239]
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<http://www.sciencemag.org/content/118/3078/782.extract?sid=5f16e2e1-8ac1-46e0-883b-e6a10084b8e0> Agent Orange Corn' Debate Rages As Dow Seeks Approval Of New Genetically Modified Seed. Lucia Graves, Huffington Post, April 26, 2012
http://www.huffingtonpost.com/2012/04/26/enlist-dow-agent-orange-corn_n_1456129.html
 Neonicotinoid Pesticide Reduces Bumble Bee Colony Growth and Queen Production. Penelope R. Whitehorn, Stephanie O'Connor, Felix L. Wackers, and Dave Goulson Science 20 April 2012: 351-352. Published online 29 March 2012 [DOI:10.1126/science.1215025]
<http://www.sciencemag.org/content/336/6079/351.abstract?sid=1fea041e-9f07-40f2-953b-bcfc77962ac> Higes M, et al. Honeybee colony collapse due to *Nosema ceranae* in professional apiaries. *Environ Microbiol Rep.* 2009;1:110–113. Decourtye A, Devillers J, Cluzeau S, Charreton M, Pham-Delègue M. Effects of imidacloprid and deltamethrin on associative learning in honeybees under semi-field and laboratory conditions. *Ecotoxicol Environ Saf.* 2004;57:410–419. A Common Pesticide Decreases Foraging Success and Survival in Honey Bees. Mickaël Henry, Maxime Béguin, Fabrice Requier, Oriane Rollin, Jean-François Odoux, Pierrick Aupinel, Jean Aptel, Sylvie Tchamitchian, and Axel Decourtye Science 20 April 2012: 348-350. Published online 29 March 2012 [DOI:10.1126/science.1215039]
<http://www.sciencemag.org/content/336/6079/348.abstract?sid=1fea041e-9f07-40f2-953b-bcfc77962ac> Widely Used Pesticides Are Killing Bees http://www.huffingtonpost.com/heather-pilatic/bees-pesticides-studies_b_1389499.html In addition for your reference we are including the following volume of 71 items of scientific evidence showing harm of GMO food consumption compiled by the The Safe Food Foundation: (a) Aris, A and Leblanc, S. (2011) "Maternal and fetal exposure to pesticides associated to genetically modified foods in Eastern Townships of Quebec, Canada" *Reproductive Toxicology*, 2011 May; 31(4):528-33. Epub 2011 Feb 18. (b) Antoniou, M et al. (2011) "Roundup and birth defects: Is the public being kept in the dark?" *Earth Open Source*. (1) Agodi, A. et al. (2006) "Detection of genetically modified DNA sequences in milk from The Italian market". *International Journal of Hygiene and Environmental Health*, 209, 81-88. (2) Benachour N, Sipahutar H, Moslemi S. et al. "Time- and dose- dependent effects of roundup on human embryonic and placental cells". *Arch Environ Contam Toxicol.* 2007;53:126-133 (3) Benachour, N. and Seralini, G-E. 2008, "Glyphosate Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells", *Chemical Research in Toxicology*, DOI: 10.1021/ tx800218n. Publication Date (Web): December 23, 2008 (4) Bernstein, I.L., Bernstein, J.A., Miller, M., Tierzieva, S., Bernstein, D.I., Lummus, Z., Selgrade, M.K., Doerfler, D.L. and Seligy, V.L. (1999). "Immune responses in farm workers after exposure to *Bacillus thuringiensis* pesticides", *Environmental Health Perspectives* 107, 575-582 (5) Chowdhury, EH., et al (2003) "Detection of corn intrinsic and recombinant DNA fragments and Cry1Ab protein in the gastrointestinal contents of pigs fed genetically modified corn Bt11". *Journal of Animal Science* 81, 2546-2551. (6) Cisterna B, Flach F, Vecchio L, Barabino SM, Battistelli S, Martin TE, Malatesta M, Biggiogera M. 2008, "Can a genetically- modified organism-containing diet influence embryo development? A preliminary study on pre-implantation mouse embryos". *Eur J Histochem.* 2008 Oct-Dec; 52(4):263-7. (7) Duggan et al., 2003, "Fate of genetically modified maize DNA in the oral cavity and rumen of sheep", *British Journal of Nutrition*, 2003, (8)

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of a rat feeding study with a genetically modified maize reveals signs of hepatorenal toxicity". Arch Environ Contam Toxicol. 2007;52:596-602 (31) Sharma R, Alexander TW, John SJ, Forster RJ, McAllister TA. 2004, "Relative stability of transgene DNA fragments from GM rapeseed in mixed ruminal cultures". Br J Nutr. 2004 May;91(5):673-81. (32) Sharma R, Damgaard D, Alexander TW, Dugan ME, Aalhus JL, Stanford K, McAllister TA. (2006) "Detection of transgenic and endogenous plant DNA in digesta and tissues of sheep and pigs fed Roundup Ready canola meal". J Agric Food Chem. 2006 Mar 8;54(5): 1699-709. (33) Tayabali AF and Seligy VL. 2000, "Human cell exposure assays of Bacillus thuringiensis commercial insecticides: production of Bacillus cereus-like cytolytic effects from outgrowth of spores". Environ Health Perspect 108: 919-930, (2000). (34) Trabalza-Marinucci M, Brandi G, Rondini C, Avellini L, Giammarini C, Costarelli S, Acuti G, Orlandi C, Filippini G, Chiaradia E, Malatesta M, Crotti S, Antonini C, Amagliani G, Manuali E, Mastrogiacomo AR, Moscati L, Haouet MN, Gaiti A, Magnani M (2008). "A three year longitudinal study on the effects of a diet containing genetically modified Bt176 maize on the health status and performance on sheep". Livestock Sci 113:178-190 (35) Tudisco R, Lombardi P, Bovera F, d'Angelo D, Cutrignelli MI, Mastellone V, Terzi V, Avallone L, Infascelli F (2006) "Genetically modified soya bean in rabbit feeding: detection of DNA fragments and evaluation of metabolic effects by enzymatic analysis." Anim Sci 82:193-199 (36) RI. Vázquez, L. Moreno-Fierros, L. Neri-Bazán, G.A. De la Riva and R. López-Revilla: "Bacillus thuringiensis Cry1Ac protoxin is a potent systemic and mucosal adjuvant". Scandinavian Journal of Immunology 49, 578-584 (1999); (37) Vazquez Padron, R.I., Moreno Fierros, L., Neri Bazan, L., De la Riva, G.A. and Lopez Revilla, R. "Intragastric and intraperitoneal administration of Cry1Ac protoxin from Bacillus thuringiensis induces systemic and mucosal antibody responses in mice". Life Sciences 64, 1897-1912. (1999); (38) Vazquez-Padron, R.I., Moreno-Fierros, L., Neri-Bazan, L., Martinez-Gil, A.F., de la Riva, G.A. and Lopez-Revilla, R.(2000) "Characterization of the mucosal and systemic immune response induced by Cry1Ac protein from Bacillus thuringiensis HD 73 in mice". Brazilian Journal of Medical and Biological Research 33, 147-155 (2000); (39) Vazquez Padron, R.I., Gonzalez Cabrera, J., Garcia Tovar, C., Neri Bazan, L., Lopez Revilla, R., Hernandez, M., Morena Fierros, L. and De la Riva, G.A. (2000) "Cry1Ac protoxin from Bacillus thuringiensis sp. kurstaki HD73 binds to surface proteins in the mouse small intestine". Biochemical and Biophysical Research Communications 271, 54-58 (2000)). (40) Vazquez-Padron, RI. Et al. (2000) "Characterization of the mucosal and systemic immune response induced by Cry1Ac protein from Bacillus thuringiensis HD 73 in mice". Brazilian Journal of Medical and Biological Research 33, 147-155. (41) Vecchio L, Cisterna B, Malatesta M, Martin TE, Biggiogera M (2004) "Ultrastructural analysis of testes from mice fed on genetically modified soybean". Eur J Histochem 48:449-453 (42) Velimirov A, Binter C and Zentek J. (2008) "Biological effects of transgenic maize NK603xMON810 fed in long term reproduction studies in mice". Report, Forschungsberichte der Sektion IV, Band 3. Institut für Ernährung, and Forschungsinstitut für biologischen Landbau, Vienna, Austria, November 2008. (43) Vendômois, JS, François Roullier, Dominique Cellier and Gilles- Eric Séralini. 2009, "A Comparison of the Effects of Three GM Corn Varieties on Mammalian Health" . International Journal of Biological Sciences 2009; 5(7):706-726 (44) Yum, HY. (2005) "Genetically modified and wild soybeans: An immunologic comparison". Allergy and Asthma Proceedings, 26, 210-216.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:27 AM
To: AGL Testimony
Cc: jamclu@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Joe McClure	Individual	Oppose	No
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Comments: Please do not add a burden to the business community to require labeling on food produced with technology that has proven itself in countless studies and over a billion meals. This is an obvious attempt to end a safe, viable, and necessary technology and industry. Those who want to distinguish their products can label them voluntarily just like some foods are labeled 'Kosher'. Thanks.

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Sent: Wednesday, March 20, 2013 7:27 AM
To: AGL Testimony
Cc: finley_michele@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michele Finley	Individual	Oppose	No

Comments: It is the Federal Governments responsibility to mandate labeling, not the State or County governments. Therefore, this bill is illegal.

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Sent: Wednesday, March 20, 2013 7:27 AM
To: AGL Testimony
Cc: tarogifts@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Edie Bikle	Individual	Support	No

Comments: As a consumer of food, I demand that we are given the choice to decide if we want to eat GMO products. I don't feel that enough research has been done to ensure the safety of GMO food. I do not like the fact corn is able to produce BT toxin to kill bugs that eat it-what about us-what about our children? Please show you care about your constituents and not the big corporations. Mahalo.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:27 AM
To: AGL Testimony
Cc: bruceryland@sbcglobal.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bruce Ryland	Individual	Oppose	No

Comments: Please vote against HB 174. It is not needed, is based upon fear and not science, is misleading and not fact-based. The people who are proposing this measure are using lies, misinformation and slander to advance their agenda. I have been involved in conservation and environmental issues my entire life. It is one of my life's passions. I am educated and experienced in biology, biochemistry, ecology, agriculture, integrated pest management, etc. I would not support GE technology if I hadn't seen with my own eyes the benefits and data that proves demonstrably the power, and the SAFETY, of this technology. If people don't want GMO, they can buy food and clothing that are labelled as such. Also, follow the money- the people who are advancing the anti-GMO stance are being funded by large corporations and producers whose main motive is to increase their competitive standing in the market place- in short, they are driven by PROFIT and GREED. Respectfully, Bruce Ryland

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To: AGL Testimony
Cc: gleafs@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: HB 174.docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
William Greenleaf	Individual	Support	No

Comments:

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Sent: Wednesday, March 20, 2013 7:28 AM
To: AGL Testimony
Cc: pedro.bisarra@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pedro Bisarra	Individual	Oppose	No

Comments:

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Cc: audie.bernardino@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Audie Bernardino	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jonathan Stocker	Individual	Oppose	No

Comments: Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range." State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double!

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To: AGL Testimony
Cc: alani_alani@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Raymond Peters	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:28 AM
To: AGL Testimony
Cc: dirathbun2@aol.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Diana McClure	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Heather Flood	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:29 AM
To: AGL Testimony
Cc: mmachado2@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
michael	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:29 AM
To: AGL Testimony
Cc: seedfarmer@testimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Melissa Waters	Individual	Oppose	No

Comments: GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense.

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:29 AM
To: AGL Testimony
Cc: Kalalaukai@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Evan Ryan	Individual	Support	No

Comments: Fact: genetically engineered food is different than non genetically engineeered food. Fact: food producers are required to accurately label foods so that the consumer knows what is being purchased. I am a farmer on the island of Maui who cares very much for the people of hawaii and the aina. Requiring labeling of genetically engineered foods in hawaii is a large step in this being required nationally, and is already required in most western nations. In addition to allowing the consumer to be aware of what they are consuming it allows genetically engineered foods to be properly tracked so that we as a nation can understand if and what impacts these foods have on our personal health. Labeling will be required nationally in short time- you as legislators are in a place to support this change in a big way. You will be celebrated in a big way for this act. Mahalo for your support! Evan Ryan Pono Grown Farm

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Sent: Wednesday, March 20, 2013 7:29 AM
To: AGL Testimony
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Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joni Ito	Individual	Oppose	No

Comments: Hawaii consumers who prefer to purchase food products that don't contain GMO ingredients can already choose foods labeled "certified organic," "non GMO," or "GMO-Free". Also, mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for all Hawaii consumers. California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double!

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:29 AM
To: AGL Testimony
Cc: alisonbailes@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alison Bhattacharyya	Individual	Oppose	No

Comments: I would like to know whether a product is GMO or not. I do not think this places significant labeling burden or expense on companies. The pesticide resistance of GMO crops increases the use of pesticides, and damages the environment.

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Sent: Wednesday, March 20, 2013 7:31 AM
To: AGL Testimony
Cc: robertsj@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jonathan Roberts	Individual	Oppose	No

Comments: Obviously, HB174 is being pushed by people opposed to genetic modification of crops rather than in "peoples' right to know." Right now, you can easily buy non-GMO products by sticking to foods labeled "organic," so this legislation is unnecessary. Hawaii food prices are already too high to burden with additional regulation that won't accomplish anything. The anti-GMO people just want to scare consumers and their demands for "proof" that GM foods are safe misunderstands the process of science. The fact is, people have been injured by tainted organic foods but none by GMOs.

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Sent: Wednesday, March 20, 2013 7:31 AM
To: AGL Testimony
Cc: davidochua@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
david ochua	Individual	Support	No

Comments:

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Cc: tom.jeffrey.b.magbual@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
TJ MAGBUAL	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: prgamit@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Gamit	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:33 AM
To: AGL Testimony
Cc: calsen.agraade@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
calsen agraade	Individual	Oppose	No

Comments: The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food.

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Sent: Wednesday, March 20, 2013 7:33 AM
To: AGL Testimony
Cc: mwillman@illinoisalumni.org
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Willman	Individual	Oppose	No

Comments: I oppose this bill because I believe GMO foods are safe (they have been tested for over 10 years and is approved to be safe by the USDA and/or EPA and/or FDA), labelling is not necessary and will increase the cost of food. If consumers want GMO-free food, they have the options to buy organic, which is labeled, and/or grow their own food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:33 AM
To: AGL Testimony
Cc: andrew.asquith@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Andrew Asquith	Individual	Oppose	No

Comments: If you are going to require one industry (GMO producers) to label products, then require all companies to label. Do not discriminate!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:34 AM
To: AGL Testimony
Cc: David.shimatsu@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:34 AM
To: AGL Testimony
Cc: kjbetz@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kevin Betz	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:34 AM
To: AGL Testimony
Cc: gmbuehner@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gina Buehner	Individual	Oppose	No

Comments: I oppose HB174, HD2

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:34 AM
To: AGL Testimony
Cc: pigy12@mchsi.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Donald Petersen	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:35 AM
To: AGL Testimony
Cc: lgeller@igc.org
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Larry Geller	Individual	Support	No

Comments: Consumers have a right to know where our food comes from and how it is grown. The concerns extend beyond food safety--we are concerned also about the use of powerful pesticides on Hawaii's land.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:35 AM
To: AGL Testimony
Cc: davidochua@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
david ochua	Individual	Oppose	No

Comments:

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nishihara1 - Amanda)

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:35 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marietta Agustin	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:36 AM
To: AGL Testimony
Cc: Chemicalcarbon@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Erin Mc Iver	Individual	Oppose	No

Comments: I believe this will only hurt Hawaii and our fragile economy. We are trying to create sustainability here in Hawaii but how can we do this when our government creates more obstacles for farmers and ranchers to operate under. Kill this bill!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:36 AM
To: AGL Testimony
Cc: stevenkauai@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Steven Ruddell	Individual	Support	No

Comments: Please support the passage of GMO Labeling and HB 174. The people have a clear right to know what they are eating.

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Sent: Wednesday, March 20, 2013 7:36 AM
To: AGL Testimony
Cc: Farmnforages@gmx.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kristin Mack	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:36 AM
To: AGL Testimony
Cc: laurence@waipahu.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
LAURENCE LAFORGA	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:37 AM
To: AGL Testimony
Cc: REBECCABALGOS@YAHOO.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
REBECCA BALGOS	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:37 AM
To: AGL Testimony
Cc: altonkekoa@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alton Shimatsu	Individual	Oppose	No

Comments: Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free"

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:38 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gloria Ragus	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:37 AM
To: AGL Testimony
Cc: talingdanjun@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Ernesto Talingdan Jr.	Individual	Oppose	No
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Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:38 AM
To: AGL Testimony
Cc: kristom@tomfarms.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kris Tom	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:38 AM
To: AGL Testimony
Cc: mletchworth@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Letchworth	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Cc: ewhitted@dow.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eric Whitted	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:39 AM
To: AGL Testimony
Cc: PPerez@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pierriden Perez	Dow AgroSciences	Oppose	No

Comments: I oppose HB174, it is unnecessary.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:39 AM
To: AGL Testimony
Cc: pakalapride@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eyleo	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:39 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
floresa v ragus	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:40 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Virgilio Manzano	Individual	Oppose	No

Comments:

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Cc: Tree@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stephen Luksic	Individual	Support	No

Comments: Aloha, I Support HB 174 - it is a bill long overdue and the consumers of Hawaii have a right to know what we are eating. The Argument that the Federal Law will usurp the state law should be questioned under the 10th Amendment. Just being a citizen I depend on our state legislatures to do what is right for the people. Too many questions in regards to GMOs should, at the minimum, require a label. GMOs Should ultimately be banned from our food supply! The FDA has been wrong before, causing over 100 thousand deaths because of the approval of drugs, and the FDA under the leadership of a former Monsanto executive is not only wrong again, it is corrupt. I beg the approval of this bill for the sake of our children. As elected officials, please give the people the information to make their own choices, and do not succumb to Money and one sided science, and a corrupt FDA.

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Sent: Wednesday, March 20, 2013 7:40 AM
To: AGL Testimony
Cc: nick_malatesta@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nicholas Malatesta	Individual	Oppose	No

Comments: This bill would open up grocers to liability and increase transportation and produce costs. Food prices in Hawaii are high enough.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:41 AM
To: AGL Testimony
Cc: kahueb@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bronson Kapono Kahue- Burrows	Individual	Oppose	No

Comments: Aloha, I am against the labeling of GMO's for the pure fact that there is no risks associated from eating Genetically Modified Crops. The data that is being brought forth by the local activist groups are 100% biased therefore making it non-credible. If they wish to not eat GMO's then they should purchase products labeled organic at a premium. Much Mahalo, Bronson

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Jon D. Petersen

HB 174 HD2 , Relating to Food Labeling
Senate Committees on Agriculture, Health, and Commerce and Consumer Protection
March 21, 2013
Room 229, at 9:00 a.m.

Position: Opposed

Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, and HTH,

Foods containing biotech ingredients are compositionally the same as conventionally produced foods. Distinguishing them with a special label would mislead consumers by falsely implying they are different. The U.S. Food and Drug Administration has consistently held that "there is no significant difference between foods produced using bio-engineering, as a class, and their conventional counterparts". Consumers who prefer to purchase food products that don't contain any biotechnology-derived ingredients can already choose foods labeled "Certified Organic", "Non GMO", or "GMO-Free". Mandatory labeling will increase food costs for the consumer.

Thank you for the opportunity to present testimony in support of science-based decision making.

nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:41 AM
To: AGL Testimony
Cc: sylvia@sylviasphotos.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
sylvia	Individual	Support	No

Comments: Please include the following: 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. Please do not allow big corporations to override the people of this island Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:42 AM
To: AGL Testimony
Cc: chris.aloha@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Chistopher M. Rudinoff	Individual	Support	No
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Comments: It is a constitutional right for the people and by the people to know the truth. So the citizens of our great country want the truth to be able to make a true decision for each citizen. As far as my island home of Kauai being used as test subjects ,as was the case with Agent-Orange in the 1960's,I pity anyone who supports and continues to endanger the public health, water shed, soil, and oceans that belong to ALL mankind as the people have spoken since the 1960's and their patience has run out long ago-

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Sent: Wednesday, March 20, 2013 7:42 AM
To: AGL Testimony
Cc: creimann4@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Carol Reimann	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:42 AM
To: AGL Testimony
Cc: bsalmers@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Blake Salmers	Individual	Support	No

Comments: I support HB174, HD2. I believe that it is every consumers right to be informed that the food they eat contains GMO organisms. I support the mandatory labeling of all GMO food products and plants as well as the labeling of all NON-GMO food products and plants in the state of Hawaii. Thank you for supporting consumer rights.

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:42 AM
To: AGL Testimony
Cc: yflower@dakoz.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Yarrow Flower	Individual	Oppose	No

Comments: I oppose this bill because it will put the onus of labeling on local farmers, manufacturers and distributors. These local farmers and local companies will be forced to bear the costs associated with labeling and compliance issues, or be forced to pass increased costs to local consumer. Additionally, the Hawaii Attorney General's office has confirmed that this specific bill and other State level laws are in direct violation of Federal laws. Keep labeling legislation at the federal level where it belongs!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:43 AM
To: AGL Testimony
Cc: mcblivestock@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Bryan	Individual	Oppose	No

Comments: I believe that the written testimony by the Hawaii Cattlemens Council and from the seed corn growers covers the non sensationalized reasons for not passing this type of legislations.

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Ruiz	Syngenta	Oppose	No

Comments: I think this is a waste of time. It should be your choice if you want GMO or not. I support GMO!

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Sent: Wednesday, March 20, 2013 7:44 AM
To: AGL Testimony
Cc: thanley@matson.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tony Hanley	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: skaye@runbox.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sally Kaye	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:46 AM
To: AGL Testimony
Cc: maria.makaleha@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maria Walker	Individual	Support	No

Comments: Aloha Committee Members, I am a constituent on Kaua'i asking for your support of HB174. I firmly support labeling of all products containing GMO ingredients. I consider this bill to be watered down from its original intent, and would much prefer to see all GMO products be labeled so that we as consumers can make informed decisions. However, any type of GE labeling is a positive step, so I am asking your support of this bill. Thank you for your consideration. Sincerely, Maria Walker, PO Box 33, Kapa'a, HI 96746

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Sent: Wednesday, March 20, 2013 7:46 AM
To: AGL Testimony
Cc: houseofel.christopher@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher. Rosenzweig	Individual	Comments Only	No

Comments: gmo should be banned from the islands entirely or at the very least labeled.

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Sent: Wednesday, March 20, 2013 7:46 AM
To: AGL Testimony
Cc: natalie.stevens42812@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Natalie Stevens	Individual	Oppose	No

Comments: I do not support labeling of gmo products.

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Sent: Wednesday, March 20, 2013 7:47 AM
To: AGL Testimony
Cc: malatesta.nicholas@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Nick Malatesta	Individual	Oppose	No
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Comments: GMO products are nutritionally identical to non GMO products. Labeling is unnecessary and will only add to the already high cost of food in Hawaii.

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Cc: jv46n2@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Vaughn	Individual	Oppose	No

Comments: Labeling something as GMO will imply to people that the product is harmful when this has never proven to be the case. This is unfair to the public and unfair to the farmers that grow the plants that go into these products. Furthermore, it is unpractical. If something is not already labeled GMO-Free, one can already assume that it contains GMOs. People are making a premium from organic and GMO-free thus they should be paying for the labeling.

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Sent: Wednesday, March 20, 2013 7:47 AM
To: AGL Testimony
Cc: roberta.puakea@syngenta.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Roberta Puakea	Individual	Oppose	No

Comments: I feel this will not be a good thing.

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To: AGL Testimony
Cc: kat.mau@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Katharina Kurth	Individual	Support	No

Comments: I believe we deserve to know what is in our food. GMO labeling is as basic as a list of ingredients that allows the consumer to make an educated buying choice. This extends to food that is produced here in Hawaii, as well. GMO consequences are unclear at this point, for the health of the consumer as well as for the health of our soil and ecosystem. Please support this bill! Mahalo!

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Sent: Wednesday, March 20, 2013 7:48 AM
To: AGL Testimony
Cc: janoah.young@syngenta.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Janoah Young	Individual	Oppose	No
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Comments:

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013
Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Guy Simola	Syngenta	Oppose	No

Comments: I've been working for corn companies over 10 years. I support GMO!

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Janice Balauro	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: shortslefj@aol.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
James M. Shortslef	Individual	Oppose	No

Comments: I oppose the mandatory labeling of foods produced using biotechnology. Mandatory labeling of foods produced using biotechnology will result in higher food costs. Genetically modified crops have been around for several years and the scientific consensus on the safety of genetically modified crops is overwhelming. More than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers who prefer to purchase food products that don't contain GMO ingredients already have the choice to do so by choosing foods labeled "certified organic," "non GMO," or "GMO-Free".

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Sent: Wednesday, March 20, 2013 7:48 AM
To: AGL Testimony
Cc: eric.mueller@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eric Mueller	Individual	Oppose	No

Comments: This bill will add cost to the consumer that is already struggling in a weak economy.

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Sent: Wednesday, March 20, 2013 7:49 AM
To: AGL Testimony
Cc: domingo.ballesteros@pioneer.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
<input type="text" value="Domi"/>	<input type="text" value="Individual"/>	<input type="text" value="Oppose"/>	<input type="text" value="No"/>

Comments:

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Sent: Wednesday, March 20, 2013 7:49 AM
To: AGL Testimony
Cc: taryn.dizon@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Taryn Dizon	Individual	Oppose	No

Comments: Taryn Dizon HB 174 HD2 , Relating to Food Labeling Senate Committees on Agriculture, Health, and Commerce and Consumer Protection March 21, 2013 Room 229, at 9:00 a.m. Position: Opposed Chairs Nishihara, Baker, and Green; Vice Chairs Kouchi and Galuteria; and Members of the Senate Committees on AGR, CPN, an HTH, I oppose this bill as it will increase food cost and there is no reason or evidence that this label will benefit our community or life. Labeling food cost will also drive cost for the SNAP program and many other non-profit organizations that support our community with hunger. GMO is not only in food but we depend on it in Cotton, Fuel, and many other necessities that we use in life. Thank you for the opportunity to present testimony in support of science-based decision making.

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Sent: Wednesday, March 20, 2013 7:49 AM
To: AGL Testimony
Cc: Hanaleikona@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Roman Dycus	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: Madcower@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bryce Boeder	Individual	Support	No

Comments: GMOs are labeled and even BANNED in most parts of the world. We want to know what is in our food. This is a basic civil right. This is such common sense, I can't believe we are even having to fight for something like this!

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Willman	Individual	Oppose	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Janoah Young	Syngenta	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 7:50 AM
To: AGL Testimony
Cc: stephtino@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO labeling letter.doc

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stephanie Costantino	Individual	Support	No

Comments: Please let me know ASAP, if this testimony is not in a readable format. Thank you, Stephanie Costantino 808-870-8463 stephtino@yahoo.com

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To: AGL Testimony
Cc: bethleeds@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Beth Leeds	Individual	Comments Only	No

Comments: Please --you must require ALL Hawaii produce that is genetically modified, be labeled as GMO food. Also, ALL imported food that is genetically modified must be labeled GMO. I support GMO labeling in this manner! We have a right to know what is in our food. There is evidence that GMO foods can alter liver function as well as other alterations in our bodies. We have a right to choose what foods we want to eat.

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Sent: Wednesday, March 20, 2013 7:51 AM
To: AGL Testimony
Cc: cmhorner@surewest.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Chris Horner	Individual	Oppose	No

Comments: Please vote against this poorly written and ill-conceived bill

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Reid Samio	Individual	Oppose	No

Comments: I oppose of this bill,we already live in an expensive island and addiing an addition cost to our taxes is not needed.People need to undstand what they are talking about and information is out there.

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To: AGL Testimony
Cc: Mathetesm@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matthew Morin	Individual	Support	No

Comments: • Consumers have a right to know whether the food they are eating is produced using genetic modification techniques • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) • Request that the bill be amended to include labeling of Hawaii produce that is GMO

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Sent: Wednesday, March 20, 2013 7:53 AM
To: AGL Testimony
Cc: TAI_BRAN@MSN.COM
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
TAI-LI MEDEIROS	Individual	Oppose	No

Comments: I strongly oppose this bill. Please don't let these fear-mongering individuals convince you that GMO's aren't safe. Studies have shown time and time again that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Please leave this mandatory labeling up to the federal government. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Consumers already have a choice to buy non GMO foods; don't let the people of Hawaii pay more for food than they already do. Thank you!

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jill Suga	Syngenta	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:53 AM
To: AGL Testimony
Cc: hrees101@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: -Waimea-school-children-pages

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Hannah Rees	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:54 AM
To: AGL Testimony
Cc: wendy.reinhardt.kapsak@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Wendy Reinhardt Kapsak	Monsanto	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:54 AM
To: AGL Testimony
Cc: judydalton123@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Judy Dalton	Individual	Support	No

Comments: Please vote YES on our right to know what we're feeding ourselves and our children. If the GMO industry believes their product is safe, why are they trying so hard to prevent consumers's right to know if what we're eating contains GMOs? Mahalo for supporting this bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:56 AM
To: AGL Testimony
Cc: Ronvanclief@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ron Van Clief	Individual	Comments Only	No

Comments: GMO PRODUCTS MUST BE LABELED

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:56 AM
To: AGL Testimony
Cc: yaoluo1978@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
yao luo	Individual	Oppose	No

Comments: this bill is poorly written and not well conceived

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:56 AM
To: AGL Testimony
Cc: shihshieh.huang@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shihshieh Huang	Individual	Oppose	No

Comments: Please vote against this poorly written and ill-conceived bill.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:56 AM
To: AGL Testimony
Cc: ikaikatilton@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Frank Tilton	Individual	Support	No

Comments: • Consumers have a right to know whether the food they are eating is produced using genetic modification techniques • GMOs pose potential adverse environmental impacts (e.g. increased herbicide use, super-weeds, loss of biodiversity, etc.) • There are unknown long-term health impacts of the consumption of GMO foods (many independent studies show cause for concern) • Request that the bill be amended to include labeling of Hawaii produce that is GMO

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:57 AM
To: AGL Testimony
Cc: vivian.a.miguel@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Vivian Miguel	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:57 AM
To: AGL Testimony
Cc: dan.clegg@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dan Clegg	Monsanto Company	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:58 AM
To: AGL Testimony
Cc: cheviv20@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Corazon Aquino	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 7:59 AM
To: AGL Testimony
Cc: justinbrunold@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Justin Brunold	Individual	Support	No

Comments: It is vital to the health of our land and for the health of the American People that we have the right know where our food comes from and how it was produced. GMO labeling let's us, the people decide. If GMO is safe then let us make that choice when we buy our food. This is probably the single most important thing for the future of America. Please, please pass the bill to label GMO products. Mahalo, Justin Brunold Lahaina, HI

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 7:59 AM
To: AGL Testimony
Cc: cheviv20@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eliseo Crispin Aquino	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:00 AM
To: AGL Testimony
Cc: kcmt1443@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Chad Yadao	Individual	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:00 AM
To: AGL Testimony
Cc: susan.stayton@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Stayton	Individual	Support	No

Comments: I speak in support of HB174. I believe that the people of Hawaii have a right to make their own choices about what they eat. Without labeling, that is not possible. Make the corporations tell the truth about what they are selling to us. Thanks for your attention, Susan Stayton Kauai

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:01 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Jack Sagucio	Syngenta	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:01 AM
To: AGL Testimony
Cc: jasonknoche@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
jason knoche	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:01 AM
To: AGL Testimony
Cc: alohajeftpeterson@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeffrey Peterson	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:01 AM
To: AGL Testimony
Cc: hawthornem@live.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marlene Hawthorne	Individual	Oppose	No

Comments: Gmo are not at all hurting anything. They are helping. People are so uninformed.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:02 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Eddie Caberto	Individual	Oppose	No

Comments: GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:02 AM
To: AGL Testimony
Cc: bigfellahs@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Piilani Augustiro	Individual	Oppose	No

Comments: I have lived in Hawaii all my life. I am a wife and a mother of 4. We pay the price to live in Paradise, and personally, I feel blessed to still be able to live on Moloka'i where life for me is peaceful!! Although we struggle from time to time, we appreciate all we have, and make it work!! Cost of living is already high here, we spend the most money on groceries. What will this bill mean to me and my family? At whose expense will this be towards? I OPPOSE THIS BILL!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:02 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marvin Olores	Syngenta	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:03 AM
To: AGL Testimony
Cc: ninastarsong@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nina	Individual	Support	No

Comments: Dear Honorable Senators of the Agriculture, Consumer Protection and Health Committees. I support the passing of this bill because we as citizens have the right to know what is in our food. So put a label on all GMO food and please include these amendments 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not. Please know that if any Senator votes against this or if the Chairs Nishihara and Baker move to amend it from its labeling form into a labeling study or any other sneaky trick, if they defer the bill and kill it, if they do not add in local produce, if they do not pass this labeling bill favorably, we will work on a deeply dedicated level against their re-elections. Thank you, Nina Luzzi

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:03 AM
To: AGL Testimony
Cc: dna4pay@att.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Andrew Mroczka	Individual	Oppose	No

Comments: To whom it may concern, Please vote against this irrational bill. There is no reputable evidence to back its supporters' claims that genetically engineered crops cause harm to human or animal health or the environment. The bill is an ill-concieved attempt by anti-science, anti-technology fringe groups, who do not understand the technology, to create a negative stigma about the use of biotechnology in agriculture, and, as they admit, to effectively ban its use. Food companies and grocers already reserve the right to label foods produced from genetically-engineered crops, however misguided, making the only effects of this mandatory labeling initiative an increase in food costs and needlessly scaring consumers about a safe, proven technology. Thank you for your consideration. -- Andrew Mroczka

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:03 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Bradford Vidinha	Individual	Oppose	No
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Comments: People are already having a hard time as it is living in Hawaii we already pay more for products and it will be much worse if this Bill passes. I say no to HB174 and people do have choices to buy other foods like at Down to Earth or Wholefoods. Vote NO and let's move on. I been working in the seed industry for 15 years and GMO is safe bottom line. VOTE NO Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:04 AM
To: AGL Testimony
Cc: nicolefechtig@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole Fechtig	Individual	Support	No

Comments: The public should have the right to choose whether or not to consume genetically modified foods. This information should not be concealed from the buyer for the benefit of corporate interests and the possible detriment of public health and safety.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:05 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sheila Harty	Syngenta	Oppose	No

Comments:

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To: AGL Testimony
Cc: sarians@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sean Arians	Individual	Oppose	No

Comments: As a grower in the US, I would be strongly opposed to this bill and mandatory GMO labeling on food products. The USDA maintains standards for food security and I feel that this would be a huge cost added to growers. Consumers will not pay for this additional information and therefore the cost will be passed down the line to the grower increasing their input costs. I would encourage you to oppose this legislation to help keep the American farmer efficient in what we do best....Produce a sustainable product for consumption around the world.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:05 AM
To: AGL Testimony
Cc: toddsmithrocks@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Todd Smith	Individual	Oppose	No

Comments: The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. The FDA is responsible for food labeling in the United States and if states start to pass individual labeling bills it will cost taxpayers millions of dollars as lawyers attempt to figure out and defend more unnecessary pieces of legislation. When consumers already have an option to buy food labeled "GMO-Free" why does the Hawaii state government need to become "Big Brother"? Voluntary market driven policies are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range" making this piece of legislation unnecessary and likely to cost Hawaii taxpayers millions.

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nishihara1 - Amanda

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Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Justin Robinson	Individual	Oppose	No

Comments: There is no scientifically valid reason for Labeling products that contain GMOs. They are highly tested and regulated to ensure their safety. This would place a huge burden on the food industry and cause unnecessary fear in the public. There already is the option to buy organic if you choose not to eat any GMO derived food.

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nishihara1 - Amanda

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Filipinas Ruiz	Syngenta	Oppose	No

Comments:

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To: AGL Testimony
Cc: sidekast15@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Walter Parada	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: psgegen@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pat Gegen	Individual	Support	No

Comments: This bill is the Least that could be done...It doesn't even have a downside...it is good for Hawaii farmers no matter what and it gives the public just a little of the information that they should have ultimately available to make well-informed decisions.

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Sent: Wednesday, March 20, 2013 8:07 AM
To: AGL Testimony
Cc: judie@aloha.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Judie Hoepfner	Individual	Support	No
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Comments: I urge you to pass this bill with an amendment to include all foods, not just produce. People have a right to know what they are eating. GMO's are labeled in many, many countries around the world - let Hawaii be the first to take the important step in the US. Thanks for voting with the people over corporations.

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Sent: Wednesday, March 20, 2013 8:08 AM
To: AGL Testimony
Cc: jre@ricetec.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jose Vicente Re	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bessie Blackstead	Syngenta	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Romel Mendoza	Syngenta	Oppose	No

Comments:

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Cc: cthreat@gmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Calvin Threat	Individual	Oppose	No

Comments: I oppose this bill for a number of reasons. First there is no evidence that GMO's pose any risk to public safety or health. There has not been a single death attributed to GMO's whereas we have seen multiple deaths over the last decade from people who have chosen to eat organic produce. This is a waste of taxpayer money and time. The anti-GMO lobby is loud and want to be heard but I do not believe the view of a few should force burdens on the many.

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mitch Nelson	Syngenta	Oppose	No

Comments:

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To: AGL Testimony
Cc: annietbi@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Peter and Ann Gommers	Individual	Support	No

Comments: To all Senators and Representatives of Hawaii; I cannot emphasize enough how critical it is that you support and amend HB174 HD2 in three ways to protect the aina of Hawaii. 1) Please make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) We are also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) We also recommend that Section 9 be amended to take effect 1 July 2014. The AG's office has raised three main concerns around the current wording of the HB274 HD2. For a detailed response to these concerns, please refer to the Memo by Paul Achitoff, March 17, 2013. Thank you, Peter and Ann Gommers 68-615 Farrington Hwy 17B Waialua, HI 96791 COMMITTEE ON AGRICULTURE Senator Clarence K. Nishihara, Chair Senator Ronald D. Kouchi, Vice Chair COMMITTEE ON COMMERCE AND CONSUMER PROTECTION Senator Rosalyn H. Baker, Chair Senator Brickwood Galuteria, Vice Chair COMMITTEE ON HEALTH Senator Josh Green, Chair Senator Rosalyn H. Baker, Vice Chair RE: HB174 HD2 Measure Title: RELATING TO FOOD LABELING. Report Title: Genetically Engineered Organisms; Produce; Labeling; Import Current Referral: AGL/CPN/HTH, WAM

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Sent: Wednesday, March 20, 2013 8:10 AM
To: AGL Testimony
Cc: danielle-hoohila.bicoy@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Danielle Bicoy	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: hicattlemens@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stacie Francis		Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:11 AM
To: AGL Testimony
Cc: pamela_carroll@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pamela Carroll	Individual	Oppose	No

Comments: Please vote against this poorly written and ill-conceived bill

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Sent: Wednesday, March 20, 2013 8:11 AM
To: AGL Testimony
Cc: ronman63@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ronald D. Rodriguez	Individual	Support	No

Comments: We are an island. If the mainlanders want to experiment with this stuff, that's their choice, but this is our choice. Keep these islands safe, and pure, and natural.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:11 AM
To: AGL Testimony
Cc: cody.b.wallace@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cody Wallace	Individual	Oppose	No

Comments: Opposing GMO research in Hawaii is ridiculous. Research goes on here for a reason. Thanks to the year round growing season, important conclusions can be made from agricultural research on a faster timeline. GMO's and farmers are the only things that are keeping this world from a food crisis.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:11 AM
To: AGL Testimony
Cc: alohajeftpeterson@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeffrey Peterson	Individual	Oppose	No

Comments: I oppose this bill. I recently submitted to support this bill but this was my mistake.

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Patrick Apilado	Syngenta	Oppose	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Carmelita Haumea	Syngenta	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:12 AM
To: AGL Testimony
Cc: sharon.radke@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sharon Radke	Individual	Oppose	No

Comments: Please vote against this poorly written and ill-conceived bill.

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Cc: amplesurf@yahoo.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Wil McClaren	Individual	Support	No

Comments: Look, let's keep it simple. We want to know what we are eating. Foods are labeled for a reason. If these companies are so proud of their genetic food they should be proud to label it and let people know. If they patent their seeds, then it's NOT the same ingredient (even if it goes by the same common name). Executives & employees & anyone who gains monetarily from these chemical corporations should live next door to their pesticide farms, should eat a diet filled with their faux-foods... but they shouldn't be forcing others to do so. If legislators feel indebted to Monsanto & friends because of donations – RETURN THEM!!!! Otherwise, get a job at Monsanto and make room for legislators who will represent the people, not chemical corporations. The people have spoken, it is apparent. NO GMOS! Thank you! We're all watching & taking names & appreciate those who are doing the right thing.

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jantry Castillo	Syngenta	Oppose	No

Comments:

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
SM Igne	Individual	Oppose	No

Comments:

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Cc: hpbsim@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Hayde Sim	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: jhummy@gmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Josh Hunziker	Individual	Oppose	No

Comments: Strongly opposed

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Cc: nhaahr@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nathan A. Haahr	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Hannah Dumapit	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Audra Lui-Sanay		Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:15 AM
To: AGL Testimony
Cc: madhouse5@cox.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tracy Madlener	Individual	Support	No

Comments: Aloha Kakahiaka Honorable Senators of the Agriculture, Consumer Protection and Health Committees, My name is Tracy Madlener and my testimony is in support on behalf of myself and my family in Hawaii. I'm sure that most of you on the committees are a mom or a dad. I'm also pretty sure that there are some grandparents on the committees as well. As parents, we strive to do the very best for our children from guiding them, loving them, protecting them and nourishing them. We want our children to grow up to be happy and healthy, but feeding them a diet filled with GMOs that has pesticides in the food source is not healthy. We have a right as caregivers to know if we are feeding our children poison. Our children trusts US the parents to keep them healthy. With that in mind, please pass the Bill HB174 to include ALL GMO produce and to be effective immediately, not in 2112. For this particular bill, I ask respectfully of the committees to vote as a parent. To vote for your children and your grandchildren's health and well being. Vote with your heart and know that we are all watching how you will vote for your kids and for the people of Hawaii. Keep in mind that decisions for the next election will be about those who are for the people of Hawaii and the HB174 Bill and those who are not. Mahalo for your time and consideration, Tracy Madlener

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To: AGL Testimony
Cc: bengeb001@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brad Benge	Individual	Oppose	No

Comments: Why would you as our elected officials raise the cost of groceries for families? This bill is nothing more than a "feel good" measure that has no scientific backing. The products we purchase in the grocery stores already have all of the information needed. Are we saying that the USDA does not have the proper requirements to safely label our food supply? GMO products have been in our food supply for over 15 years and there have not been any tumors, cancer or allergic reactions to any of these products. A GMO product or a product derived from a plant that contained a GMO are in our every day life from toothpaste to the ethanol blended gasoline we put in our vehicles. Certified organic is certified to be GMO free and that is the only label consumers need to make a determination of GMO free or not. Than you for your time.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:15 AM
To: AGL Testimony
Cc: sarahkauai@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
sarah smith	Individual	Comments Only	No

Comments: Our citizens deserve to have our food properly labeled. I do not wish to have GMO's in my food, so I ask that you support the bill which will require labeling. Mahalo

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brock- Allen Reyes	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Cc: beausephine@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Beau Barthel- Blair	Individual	Comments Only	No
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Comments: Please Senators! Do the Pono thing, and support HB 174! Your constituents deserve "the right to know" what is in their food. The Agro-business is a BUSINESS, and clearly not concerned with the people of Hawaii in any other regard than as consumers for their own profit. We are watching this and all the other bills related to our ability to feed our families with healthy, clean organic food, and it should be your PRIMARY concern that we be protected and supported in this regard. Thank you for your attention to this and all GMO related matters. We will be watching your responses to these very important concerns. Mahalo for your time, Beau Barthel-Blair (resident of Kauai) 808-826-7038

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Cc: Karen@RedwoodGames.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Karen Chun	Individual	Support	No

Comments: Please pass this and add these amendments: 1) To make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2) We are also concerned that Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3) We also recommend that Section 9 be amended to take effect 1 July 2014.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:16 AM
To: AGL Testimony
Cc: dgmaum@dow.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Donald G. Maum	Individual	Oppose	No

Comments: Please oppose HB174 regarding the labeling of food as to whether it is genetically modified or not. All modern food has been genetically modified, whether through traditional or high tech breeding, so the labeling is moot. This bill is only a ploy by anti-gmo activist groups to damage large companies that have the resources to help feed the world's growing masses. The passage of this bill will not only hurt the state of Hawaii, but the rest of the world. Yes, that is how important Hawaii is to the world economy. Please vote no to HB174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:17 AM
To: AGL Testimony
Cc: juitermark@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jessie Uitermark	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:17 AM
To: AGL Testimony
Cc: eve3ibiz@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
E. Hands	Individual	Support	No

Comments: Firstly, i sincerely hope that the proposed effective date/year is 2012, not 2112 as shown here. ?! Secondly, i feel strongly that the consumer has a right to know what is in the food purchased; what we consume affects our health and well-being in a myriad ways which we may not as-yet fully understand, as Nutrition is a relatively new science. Thirdly, i feel that this measure does not go far enough; why does it require labeling of only IMPORTED genetically engineered food? Why not labeling of ALL food - including food for sale here, whether or not genetically altered? As someone who has for years habitually scrutinised - often with great difficulty, as the labels are often SO small! - the products for sale on supermarket shelves in an attempt to keep chemicals I don't want IN my body, OUT of my body, as well as to protect those i feed from similar such harms, I cannot understand how in it is possible that GMO foods are shielded in ways to obscure them from consumers. Why are corporations who genetically engineer being protected by government agencies, period?! IN SUMMARY - in my opinion, ALL foods should be clearly labelled, unless being sold as simple fruits at Farmers Markets. The simple freedoms of a free nation demand something so fundamental to freedom to choose what we want to eat!

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:17 AM
To: AGL Testimony
Cc: kyliebeth@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kylie Wilson	Individual	Support	No

Comments:

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Sent: Wednesday, March 20, 2013 8:20 AM
To: AGL Testimony
Cc: allan.james@midvalleyag.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Allan James	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:20 AM
To: AGL Testimony
Cc: jamie.piripi.davidson@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jamie Davidson	Individual	Oppose	No

Comments: I do not agree with this bill. There have been many peer reviewed studies throughout the world concluding no more risk from consuming GMO products than Non-GMO products. The additional cost of labelling will be passed on to the consumer and consumers have a responsibility to educate themselves and their families to be aware of what they consume, and to then make choices based on their beliefs. No one person or group should be forcing their beliefs or opinions on other people, which a bill like this is destined to do. I disagree with this bill as I do not see its purpose as beneficial to the consumer.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:20 AM
To: AGL Testimony
Cc: katiehorgan@me.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kathleen Horgan	Individual	Support	No

Comments: Consumers have the right to know how their food is grown. Transparency is essential. Protect consumers rights and protect the environment from potential invasive species. No matter which side of the fence you stand on regarding the safety of GMOs labeling must be adopted.

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Sent: Wednesday, March 20, 2013 8:21 AM
To: AGL Testimony
Cc: LaurieHo1@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie K Ho	Individual	Oppose	No

Comments: Mahalo.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:22 AM
To: AGL Testimony
Cc: seedfarmer testimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Suiyen Rita	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:22 AM
To: AGL Testimony
Cc: caryr1111@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cary M Richman	Individual	Support	No

Comments: Europe & much of the developed world sees GMOs as uncertain & possibly dangerous enough to ban them, & at the very least to require stringent labeling, study, & restrictions. Please stop the reckless experimentation that has been allowed unregulated in Hawaii for too long! Here on Kauai, we have been finding serious health issues, & are deeply concerned about unrestricted & reckless GMO experimentation on our soil. Thank you for your consideration

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Clint Silva	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:22 AM
To: AGL Testimony
Cc: dizon.alexis@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alexis Dizon	Individual	Support	No

Comments: This important to me because I have the right to know both as an individual and as a consumer what I am putting in my body. After I have all the facts given to me then it's my choice. Please don't take this choice away from me. Please approve labeling of GMO food.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:23 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jay Niau	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
chasen sherman	Individual	Oppose	No

Comments:

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Cc: SeedFarmertestimony@HCIAonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cindi Wilzbacher	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:24 AM
To: AGL Testimony
Cc: ramon.d.cabamongan@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ramon Cabamongan	Individual	Oppose	No

Comments: I've been working for seed Industry for more than 20 years (Syngenta and Monsanto) and I know what we do is for the good of humanity (feed the world/ help farmers). My son an environmentalist and a Political science major believes that altho labeling is OK....it should be mandated by Federal agency and not the State. With GMO, we havent had any cases of deaths but we do hear of conventional and organic cases of deaths (e. coli, etc). Two summers ago, about 55. from Europe died from organic bean sprout (E. coli) i think grown from Spain. If i know GMO is bad - I have family and friends to protect as well - but i know it is safe. Mahalo for considering mine and others testimonies for GMO.

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Sent: Wednesday, March 20, 2013 8:24 AM
To: AGL Testimony
Cc: zach.mermel@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Zachary Mermel	Individual	Support	No

Comments: I strongly support the passage of HB174. Hawaii's citizens deserve the right to know whether the food they consume contains genetically modified ingredients.

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Sent: Wednesday, March 20, 2013 8:24 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shaun Banasihan	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:25 AM
To: AGL Testimony
Cc: cybermad@msn.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Neil Clendeninn	Individual	Support	No

Comments: Please support and pass this important bill. It is important that consumers know what is in their food. If GMO is safe it should make no difference if the label indicates it has GMO component.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:25 AM
To: AGL Testimony
Cc: mahina.tuteur@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mahina Tuteur	Individual	Support	No

Comments:

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Sent: Wednesday, March 20, 2013 8:25 AM
To: AGL Testimony
Cc: alohalways@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tanja Miller	Individual	Support	No

Comments: I hope that this is heard and recommend passage with TWO AMENDMENTS: : 1) The bill be amended to include local GMO produce as to not violate the Commerce Clause. 2) The bill be clearly defined as necessary in order to prevent consumer confusion so that Hawaii shoppers are clear about whether the produce they are purchasing is genetically engineered or not.

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Sent: Wednesday, March 20, 2013 8:26 AM
To: AGL Testimony
Cc: goodingk@hawaiiantel.net
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kelly Gooding	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:26 AM
To: AGL Testimony
Cc: jpwebe@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
J. Weber	Monsanto Company	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:27 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alison Sakata	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:27 AM
To: AGL Testimony
Cc: bmbblue2@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brianne Blue	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:27 AM
To: AGL Testimony
Cc: emilystagner@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Emily Stagner	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:27 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sofronio Alvares	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:28 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
burt matthews	Individual	Oppose	No

Comments: The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:28 AM
To: AGL Testimony
Cc: rcblake@mac.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
R C Blake	Individual	Support	No

Comments: I want and have a right to know what is in my food

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:28 AM
To: AGL Testimony
Cc: marissa.sabado@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
marissa c. sabado	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:29 AM
To: AGL Testimony
Cc: john.o.hardy@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jack Hardy	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:29 AM
To: AGL Testimony
Cc: kaiakapu@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Patty Ka'iakapu	Individual	Oppose	No

Comments: Please do not give any more time or attention to this bill. It needs to be given more thought and better written. At the moment the state of our economy and education system is far more important and deserving of your time than this bill. Please put your efforts towards matters of greater importance. Mahalo.

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To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Yolanda Niau- Blevens	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:30 AM
To: AGL Testimony
Cc: bdtenu@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brian Ternus	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:31 AM
To: AGL Testimony
Cc: beausephine@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Beau	Individual	Comments Only	No

Comments: Aloha Senators. Your support of HB174 is of grave concern and importance to the health & welfare of your constituents. I, my husband, and children are all voters, and long time residents who value the quality of our land, water, air & food. We are in SUPPORT of HB174, which you should support as well. Labeling GMO's is the first step in insuring that we are free to choose foods that are safe and healthy. We are watching how the government either supports it's constituents, or the "for profit" corporations that exploit the people and lands of Hawaii. Please, support HB174. Mahalo, Beau Barthel-Blair (808-826-7038

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Sent: Wednesday, March 20, 2013 8:31 AM
To: AGL Testimony
Cc: Seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Charlie	Individual	Oppose	No

Comments: I oppose this bill.

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Sent: Wednesday, March 20, 2013 8:31 AM
To: AGL Testimony
Cc: thaiqn@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Thai Nguyen	Individual	Support	No

Comments: GMO labeling will help alot of people who are choosing to eat healthier foods. This makes it more clear what is GMO and what we are consuming. I think there are alot of hidden dangers to GMO foods and this is an important step forward to making our lives healthier. Mahalo!

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Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Fleischmann	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:32 AM
To: AGL Testimony
Cc: ssheffie@hawaii.edu
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Sheffield	Individual	Support	No

Comments: I want to know what I'm eating. I support GMO labeling because I believe that GMO food is bad for my health and bad for the health of the planet.

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sundee Cline	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:33 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elena Domingo	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:33 AM
To: AGL Testimony
Cc: Seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Fermion	Individual	Oppose	No

Comments: I think gmo food is safe and unnecessary to label.

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Guido Domingo	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:34 AM
To: AGL Testimony
Cc: bbrody1@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bev Brody	Individual	Support	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:34 AM
To: AGL Testimony
Cc: haleiwajane@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jane Duncan	Individual	Support	No

Comments: YES... I emphatically support labeling of GMO foods! SIMPLE... it is OUR right to know... and it is YOUR obligation to represent our welfare! SUPPORT this BILL!!!

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:35 AM
To: AGL Testimony
Cc: bbrody1@hawaii.rr.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ricky Skerik	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:35 AM
To: AGL Testimony
Cc: vernonyoshida@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Vernon Yoshida	Individual	Oppose	No

Comments: I am a lifetime resident of Hawaii and I oppose HB 174.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:35 AM
To: AGL Testimony
Cc: floramarie@hawaiiantel.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Flora Worth	Individual	Support	No

Comments: We all have a right to know what is in our food. This is crucial to making informed choices about what we eat. I encourage you to pass this bill to label all GMO foods that may enter these islands. The population is in growing support of this measure and it is your duty to echo our voices in legislation. Mahalo nui loa.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:36 AM
To: AGL Testimony
Cc: mjoetodd@gmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Joe Todd	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:36 AM
To: AGL Testimony
Cc: john.wisheart@precisionsoya.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John Wisheart	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Billy Niau	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:37 AM
To: AGL Testimony
Cc: tianxing.zhang@pioneer.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Tianxing Zhang	Individual	Oppose	No

Comments: Genetically engineered foods and ingredients have been exhaustively studied by the U.S. Food and Drug Administration (FDA) and other scientific bodies and they have found no evidence that these products are any different from those foods produced through traditional plant breeding. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for. California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! It is reported that 66 percent of consumers are support for the FDA's current policy on labeling. Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free". I believe that in all cases the label should be verifiable, non-discriminatory and not misleading.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:37 AM
To: AGL Testimony
Cc: christopher.a.davis@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Davis	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:37 AM
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Cc: laiekawai@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Zena Wetzel	Individual	Comments Only	No

Comments: I would like to support the effort to label GMO foods and all gmo products. My family and I should be able to make informed decisions on the food I bring into my home to nourish my family. Please support our island's health by labeling GMO's. Mahalo Nui Loa.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Nishida	Individual	Oppose	No

Comments:

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Cc: mdente@hawaii.rr.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marjorie Dente	Individual	Support	No

Comments: Please vote in favor of HB 174 as it is key to start the process to get rid of ALL GMO activity on Kauai where I live. My health is being compromised by the chemically poisonous atmosphere created by the GMO research corporations. Do your job, representing the residents of Kauai, not the private corporations making enormous profits at our expense. I am counting on you to DO THE RIGHT THING and THANKS.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:38 AM
To: AGL Testimony
Cc: ffmummy@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Deborah Lynn	Individual	Support	No

Comments: I strongly support HB174 the only labeling bill left to protect the citizens of Hawaii and to give us a choice in the food we feed ourselves and our families. Please listen and support your ohana in this matter.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:38 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Benita Padron	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

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Sent: Wednesday, March 20, 2013 8:38 AM
To: AGL Testimony
Cc: Seedfarmer testimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia	Individual	Oppose	No

Comments: I oppose this bill, gmo are heavily tested and safe.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:38 AM
To: AGL Testimony
Cc: cynmooney@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia Mooney	Individual	Support	No

Comments: Please make labeling apply to imported food and food grown & or produced in Hawaii.

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Sent: Wednesday, March 20, 2013 8:39 AM
To: AGL Testimony
Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leonora Alicante	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Consuelo Ringor	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:40 AM
To: AGL Testimony
Cc: kbsmithpj@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kyle Smith	Individual	Oppose	No

Comments: There is no benefit to the consumer to mandate labeling of genetically modified foods. If consumers wish to purchase GMO free foods they have options already categorized as organic. Organic produce itself has known inherent risk such as potential exposure to E. coli from animal manure used as the Nitrogen source.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gloria Hamm	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leslie	Individual	Oppose	No

Comments: I oppose HB174.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Divina Uri	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:40 AM
To: AGL Testimony
Cc: beanydreams@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bernard Frank	Individual	Support	No

Comments: I strongly support HB174 the only labeling bill left to protect the citizens of Hawaii and to give us a choice in the food we feed ourselves and our families. Please listen and support your ohana in this matter.

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nishihara1 - Amanda

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Cc: SEEDFARMERTESTIMONY@HCIAONLINE.COM
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Gerald Padamada	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Leo Ramos	Individual	Oppose	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:41 AM
To: AGL Testimony
Cc: mioono@hotmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mio Chee	Individual	Support	No

Comments: Consumers have the right to know GMO. The long term consumption of GMO is unknow. Please label GMO foods.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:42 AM
To: AGL Testimony
Cc: seedfarmer@syngenta.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Seed Farmer	Syngenta	Oppose	No

Comments: -Labeling already exists; if foods are certified organic, they by default contain no GM ingredients -Most consumer products currently contain GM ingredients -GM products are safe and must go through rigorous and deliberate approval measures via the USDA, EPA and FDA prior to reaching the consumer -Non-GM products are often voluntarily labeled by producers or manufacturers to distinguish these products for the consumer -It is simpler for food producers to label the low percentage of products that are non-GM

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:42 AM
To: AGL Testimony
Cc: jewbuddah@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Harris Goldman	Individual	Support	No

Comments: I strongly support HB174 the only labeling bill left to protect the citizens of Hawaii and to give us a choice in the food we feed ourselves and our families. Please listen and support your ohana in this matter.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Vicenta Martinez	Individual	Oppose	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rebecca Hay	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:43 AM
To: AGL Testimony
Cc: th94404@live.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
thomas hawthorne	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013.

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Liza Ramos	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:44 AM
To: AGL Testimony
Cc: maro.valvieja69@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Maro Valvieja	Individual	Support	No

Comments: I strongly support HB174 the only labeling bill left to protect the citizens of Hawaii and to give us a choice in the food we feed ourselves and our families. Please listen and support your ohana in this matter.

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Albert Antonio	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
tina	HCIA	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Liberty Rhyne	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lionel Adachi	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Fred Aki III	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Philip Kali	Individual	Oppose	No

Comments: Mandatory labeling is the responsibility of the federal government. Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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HB174

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Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeric Rosqueta	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dexter Candelario	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:46 AM
To: AGL Testimony
Cc: rachellanifrank@gmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rachel Frank		Support	No

Comments: I strongly support HB174 the only labeling bill left to protect the citizens of Hawaii and to give us a choice in the food we feed ourselves and our families. Please listen and support your ohana in this matter.

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Sent: Wednesday, March 20, 2013 8:46 AM
To: AGL Testimony
Cc: bryan@kuaurescue.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Bryan Amona	Individual	Support	No

Comments: Please amend the bill to include the labeling of local and imported GMO foods. Thank you, Bryan Amona Kailua, HI

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cipriano Senica	Individual	Oppose	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jose Escobar	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: hourandahalf@icloud.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rosemarie Patronette	Individual	Support	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Josephine Esteban	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elsie Senica	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dylan Guerrero	Individual	Oppose	No

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Grace Floresca	Individual	Oppose	No

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Wendy Vilma Guillermo	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Samson Kaahanui	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:49 AM
To: AGL Testimony
Cc: tina.mattos@syngenta.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
tmattos	Individual	Oppose	No

Comments: - food costs would go up - labeling is unconstitutional - "biotech food" is safe - people can already decide what foods they want to purchase and/or eat; labeling creates more costs and confusion

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Cc: molokaimatt@hotmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Matt Yamashita	Individual	Support	No

Comments: My name is Matt Yamashita. I am a father, business owner, and lifelong resident on the island of Molokai. I demand the right to know whether or not GMO products are in the foods I choose to eat. Without labels we are all forced to be unwilling participants in an unnecessary science experiment. This is not acceptable. Please support HB174 with the following amendments: 1)Make the labeling requirement applicable to all produce, local and imported, as per the original intent of HB174. 2)Sections 4 and 5 may be utilized to penalize organic farmers whose crops have been contaminated by GMOs without their knowledge by giving the right to seek injunctions against those farmers. We suggest that the section be amended to state "The legislature intends that any interested person or public agency have the authority to seek an injunction to prevent or terminate a purposeful violation of this part" in order to underscore that those acting in good faith will not be penalized for the unintentional contamination of their crops or for relying on inaccurate information given to them by their suppliers. 3)Section 9 be amended to take effect 1 July 2014. Mahalo from Molokai, Matt Yamashita

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
David Gilliland	Individual	Oppose	No

Comments: My name is David Gilliland and I strongly oppose HB174 HD2. This is unworkable and unconstitutional proposed legislation. If this isn't enough it is completely unnecessary as there is absolutely no scientific basis for drawing a distinction between foods produced using a GMO system and those foods produced using a non-GMO system. If this is simply a farming system biased law then what will be labeled next? Vegetables produced using R2 water, cereals grown using conventional tillage rather than zero-till, melons grown by Mennonites? Mahalo.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jesus Rillon	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shirley Sam-Fong	Individual	Comments Only	No

Comments: Mandatory labeling is the responsibility of the federal government. Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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To: AGL Testimony
Cc: kekaha_chick@hotmail.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
christine	Individual	Oppose	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Dean Kanahele	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Phyllis Starkey	Individual	Oppose	No

Comments:

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Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kristen Cosmi	Individual	Support	No

Comments: We the people have a right to know what is in the food we buy and put into our bodies. We will fight for this labeling as long as needed, this is NOT going to go away. Please don't let these big companies take our voices away!

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
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Gail Gutierrez	Individual	Oppose	No
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Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Noel Layaoen	Individual	Oppose	No

Comments:

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Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Christina Aiu	Individual	Support	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Roselina Africa	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Justin Muratake	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Jubilee Tabilangan	Individual	Oppose	No

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Cullen Rapozo	Individual	Oppose	No

Comments: Mandatory labeling is the responsibility of the federal government. Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Yang	Individual	Oppose	No

Comments:

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HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Marivic Agcaoili	Individual	Oppose	No

Comments:

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HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Robbie Silva	Individual	Oppose	No

Comments:

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HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Tim Horton	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Shiloh Torres- Umi	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: kuala@aloha.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Marty Kiuala	Individual	Support	No

Comments: Please vote yes on HB174. Thousands of your constituents are watching and waiting to see if you will support their wishes

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:52 AM
To: AGL Testimony
Cc: marcia.nagata@syngenta.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
marcia nagata	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Amante Antolin	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Francis Kaohi	Individual	Oppose	No

Comments:

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HB174

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Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
John Klos	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Janice Naea	Individual	Oppose	No

Comments:

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Mitchell Traxler	Individual	Oppose	No

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Submitted By	Organization	Testifier Position	Present at Hearing
Benjamin Antonio	Individual	Oppose	No

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To: AGL Testimony
Cc: rob.dunford@cpsagu.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Dunford	Individual	Oppose	No

Comments: this bill will only increase food cost for the consumer.

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Sent: Wednesday, March 20, 2013 8:53 AM
To: AGL Testimony
Cc: kalikoamona@hawaii.rr.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kaliko Amona	Individual	Support	Yes

Comments: As a mother of three young children, I am asking you to please support the labeling of GMO foods. Labeling is necessary so that consumers may know which foods are genetically modified and which are not. Additionally, please amend the bill to include both imported and Hawai'i-grown produce so as not to violate the commerce clause. Mahalo, Kaliko Amona Hale'iwa

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Submitted By	Organization	Testifier Position	Present at Hearing
ariel camat	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Tyson Wilson	Individual	Oppose	No

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Submitted By	Organization	Testifier Position	Present at Hearing
Paz Antonio	Individual	Oppose	No

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Submitted By	Organization	Testifier Position	Present at Hearing
Raymond Ventura	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
wally johnson	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
John Rombach	Individual	Oppose	No

Comments: OPPOSE HB174 HD2- Help Molokai NOE! My name is John Rombach and I "OPPOSE HB174 HD2". Thank you.

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Submitted By	Organization	Testifier Position	Present at Hearing
Jorjay Bumatay	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Domingo Oriente	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Medina	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: OceanPixy@gmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Alice Switzer	Individual	Support	No

Comments: I would like to go on record that I am highly in support of labeling genetically engineered products imported or hawaii grown... The consuming public has the right to know when their food is being altered... There are to many unintended side effects... I limit the amount of these foods that are in my kitchen... I am please to see action being taken here, So we can protect our selfs from mass commercialization that does not have the human body as the highest factor rather the increase of revenue. Thank you for your time. Alice

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Sent: Wednesday, March 20, 2013 8:54 AM
To: AGL Testimony
Cc: brilana@gmail.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brilana Troublefield	Individual	Support	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Sheryll Buse	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Marycris Ballesteros	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Ricarte Balisacan	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Marcia Nagata	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Mel Guerrero	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Louis Schuster	Individual	Oppose	No

Comments: I oppose.

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Allister Argel	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
SHEERA LAFORGA	Individual	Oppose	No

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SHEERA LAFORGA	Individual	Oppose	No

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Submitted By	Organization	Testifier Position	Present at Hearing
Mary Mattos	Individual	Oppose	No

Comments:

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Joseph Kahee V	Individual	Oppose	No

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loretta mattos	Individual	Oppose	No

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Submitted By	Organization	Testifier Position	Present at Hearing
Michael DeCosta	Individual	Oppose	No

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Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kenny Kansana	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:56 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jill Coombs	Individual	Oppose	No

Comments: I oppose this bill because I feel that GM labeling if any should be a standard for all foods, food products, processed foods containing GM ingredients, pharmaceuticals, and animal feeds. I also feel that if food entering hawaii is labeled, then food produced in Hawaii should be held to the same standards.

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Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nelson Medina	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:56 AM
To: AGL Testimony
Cc: bfehr11@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brad Fehr	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: pamela.j.boies@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Pamela Boies	Individual	Oppose	No

Comments:

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To: AGL Testimony
Cc: blakemcelheny@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Blake McElheny	Individual	Support	No

Comments: Aloha. Please support HB174. Also, if possible please include local and imported produce. Thank you very much. Take care, Blake McElheny Haleiwa

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Shawn English	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sean Kekahuna	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:56 AM
To: AGL Testimony
Cc: jeremy.m.voss@monsanto.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeremy Voss	Individual	Oppose	No

Comments: I am very much opposed to the bill. Genetically modified crops are the future of agriculture and are improving farmers lives. Any labeling legislation can only hurt the agriculture industry. It makes me very sad that there are people out there that are making people fear their food supply. We have the cheapest and best food supply in the world and that is because of the American farmer and GMO's. GMO labeling can do nothing but hurt the AG industry.

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Sent: Wednesday, March 20, 2013 8:57 AM
To: AGL Testimony
Cc: sasagawasc@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Stacie Sasagawa	Individual	Oppose	No

Comments: I strongly oppose HB174. As a life time resident of this state it infuriates me that this type of legislation is even being considered. There are so many other issues that are much more important than labeling of food that has proven to be safe. I have researched both side of this issue and it is clear that those who support this bill are doing so not to protect the consumer but to target specific corporations which is wrong.

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To: AGL Testimony
Cc: ocmd2hi@yahoo.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Chris Ryer	Individual	Oppose	No

Comments: There is no value in this bill. There is no valid scientific evidence that shows a need for labeling GMO foods. This is a waste of time! Food safety and labeling should be based on scientific facts and not ideology or fantasy!

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Olivia Lor	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:57 AM
To: AGL Testimony
Cc: gokauai+HB174@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jeff C Fishman	Individual	Support	No

Comments: Please support fully the labeling of GMO products thus allowing Hawaii residents the opportunity to make informed decisions about the foods we eat. 63 countries around the world including all of Europe, Russia, China, Japan, Australia and New Zealand already require mandatory labeling of GMO products. Freedom of Choice, The Right To Know, The Right to Grow Healthy. E ola pono, Jeff C Fishman P.O. Box 3574 Lihue HI 96766

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Sent: Wednesday, March 20, 2013 8:57 AM
To: AGL Testimony
Cc: ayja.welch@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: AWELCH_HB 174_Labeling.docx

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ayja Welch	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kainoa Kaholoaa	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Willam Kauwenaole Jr	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:57 AM
To: AGL Testimony
Cc: Anne.c.todd@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Todd	Individual	Oppose	No

Comments: As a resident of Kapolei, I strongly oppose this bill. There is already a process in place to label organic food for people who do not want to purchase GMO products. This is unnecessary and will complicate our commerce.

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To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Ivan Kawamae	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:58 AM
To: AGL Testimony
Cc: himalayajr.patrick@yahoo.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
PATRICK HIMALAYA	Individual	Support	No

Comments:

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Cc: seedfarmertestimony@hciaonline.com
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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
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Kevin Kahana- Kalua	Individual	Oppose	No
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Comments:

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Sent: Wednesday, March 20, 2013 8:58 AM
To: AGL Testimony
Cc: russell@dhgllc.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: Testimony of Russell Hirsch v2.doc

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Russell Hirsch	Individual	Support	No

Comments:

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
James Limos	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:58 AM
To: AGL Testimony
Cc: sparkgapbrain@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Adamson	Individual	Support	No

Comments: Please keep Josh Green Chair of the Health Committee and pass HB174. :) Thank you.

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Sent: Wednesday, March 20, 2013 8:58 AM
To: AGL Testimony
Cc: jw_hager@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Josh Hager	Individual	Oppose	No

Comments: Aloha, I have lived and worked with transgenic crops on the west side of Kauai for 10 years. My family still farms and depends upon the use of biotech crops. I want to briefly state that I am strongly opposed to this bill because it is not based on scientific data or even the opinions of the vast majority of farmers that have implemented this technology. Unfortunately this bill is based mainly on misinformation and fear. In short, more than 600 peer-reviewed studies have demonstrated the safety of transgenic food. Consumers also already have a choice to purchase products labeled as "non-GMO," "certified organic," etc. This bill will simply perpetuate the fear-mongering and increase food costs in a state where costs are already high.

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Submitted By	Organization	Testifier Position	Present at Hearing
Hamilton Lopes	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Henry Shintani	Individual	Oppose	No

Comments: Mandatory labeling is the responsibility of the federal government. Hawaii is already facing a fiscal crisis and budget deficit as a result of federal government cuts. HB 174 is another unfunded mandate that will burden taxpayers and restrict the Dept. of Agriculture's ability to address more pressing priorities to keep our islands safe. The Hawaii Attorney General has already ruled the bill to be unconstitutional. Like many of his counterparts, the Attorney General has said that the bill violates numerous federal laws and has been found to be unconstitutional. If Hawaii were to move forward with mandated labeling laws, we would face multiple lawsuits that could cost the state millions of dollars - all at taxpayer expense. State-based labeling policies will increase the cost of food. Mandatory labeling of foods produced using biotechnology would unnecessarily result in higher food costs for consumers - especially those least able to afford it. The state of California's analysis of their 2012 labeling initiative that voter's rejected in November estimated that food costs for an average-income family would increase by approximately \$400 per year. Hawaii's people already pay up to 40 percent more for our food so we can expect that estimate to double! GMO foods are safe. The scientific consensus on the safety of genetically modified crops is overwhelming with more than 600 peer-reviewed studies by scientific authorities such as the National Academies of Science, the United Nations Food and Agriculture Organization, the World Health Organization, the American Medical Association and the American Association for the Advancement of Science. They have all concluded that there is no more risk in eating GMO food than eating conventionally or organically farmed food. Consumers already have a choice Consumers who prefer to purchase food products that don't contain GMO ingredients can choose foods labeled "certified organic," "non GMO," or "GMO-Free." In fact, both Down to Earth and Whole Foods markets have announced that they are committed to making labeled products available to their consumers. Voluntary market driven policies such as these are already used successfully for consumers with other philosophical, religious or lifestyle convictions like choosing to eat foods labeled "Kosher" or "Free Range."

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HB174

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Submitted By	Organization	Testifier Position	Present at Hearing
Mary Rose Maniago	Individual	Oppose	No

Comments:

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Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony
Cc: keith@keithranney.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: In support of HB174.doc

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Keith Ranney	Individual	Support	No

Comments:

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Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony
Cc: jason.e.cabamongan@monsanto.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jason	Individual	Oppose	No

Comments:

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HB174

Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Brad LaVallee	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
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Cherry Anne Manuel	Individual	Oppose	No
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Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 8:59 AM
To: AGL Testimony
Cc: seedfarmertestimony@hciaonline.com
Subject: *Submitted testimony for HB174 on Mar 21, 2013 09:00AM*

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Jimmy Naki	Individual	Oppose	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 9:00 AM
To: AGL Testimony
Cc: kdschm1@charter.net
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Kyle Schmidt	Individual	Oppose	No

Comments: I feel this Bill would negatively impact Farmers who have dedicated their lives to growing food and feed for the world. Every year the farmer is asked to produce more with less and GMO crops (proven safe as convention crops) are proving to be a valuable commodity to in meeting the world demand. As a family member I already have to the ability to distinguish between eating Organic produced food or GMO produced food. There is no need to create a labeling bill. I also prefer not to pay more for my food that would be passed down to me as a consumer because of added cost by the food processor and also decrease food coming from the farmer.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 9:00 AM
To: AGL Testimony
Cc: kiwiscloset@hotmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM
Attachments: GMO labeling.doc

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Torres	Individual	Support	No

Comments: Senators, I'm writing to support GMO labeling bill HB174 HD2. I have a right to clearly identify and to be able to choose the quality of the food that I, and my family, ingest. Hiding the truth from me and my family is the same thing as taking away that right. I'm requesting only two amendments to HB174HD2:

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Sent: Wednesday, March 20, 2013 9:00 AM
To: AGL Testimony
Cc: imiwami@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Iris Iwami	Individual	Oppose	No

Comments: I oppose this bill. Labeling should be for nutritional content not process. The anti-GMO movement is based on fear on perception, not real science. Iris Iwami

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Submitted By	Organization	Testifier Position	Present at Hearing
Mel Mollena	Individual	Oppose	No

Comments:

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Submitted on: 3/20/2013

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Submitted By	Organization	Testifier Position	Present at Hearing
Luzviminda Guerrero	Individual	Oppose	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Precieuse Senica	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 9:00 AM
To: AGL Testimony
Cc: rusty.rueckert@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Rusty Rueckert	Individual	Oppose	No

Comments: I am a farmer and biotech seed is an amazing tool. I actually use less pesticide and cut down on gasoline usage because of it. People that oppose biotech do not understand commercial farming. A labeling law will negatively impact my business and other food manufacturing companies. Please consider the negative impact on small and large businesses that labeling will have.

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HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Nathan Starkey	Individual	Oppose	No

Comments:

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nishihara1 - Amanda

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, March 20, 2013 9:01 AM
To: AGL Testimony
Cc: jtt.hew@gmail.com
Subject: Submitted testimony for HB174 on Mar 21, 2013 09:00AM

HB174

Submitted on: 3/20/2013

Testimony for AGL/CPN/HTH on Mar 21, 2013 09:00AM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Janeel Hew	Individual	Support	No

Comments: Greetings, Thank you for your time and consideration of HB174. I strongly encourage you all to pass this Bill. Genetically modified labelling, gives the consumer and the seller the right of choice. In a world with so much uncertainty, having that right is very important and an individuals control of their own health is more productive in consideration of our youth records in health. This is a step towards healthier food consumption in Hawaii. Thank you in advance for passing HB174. Janeel Hew

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Sandra Herndon
6165 Alapaki Road, Kapaa, HI 96746
808-635-4545

March 19, 2013

RE: HB174

Aloha Senator:

I am writing to ask your full support of the GMO labeling bill; although it certainly does not go far enough to protect the health and welfare of the people, let alone the planet, I feel this is a first step forward.

It is extremely important to put the Chemical/"Seed" Companies on notice that they are the ones responsible for "truth in advertising" and regardless of the profits they are making, they cannot buy integrity-nor can the legislature.

We need a level playing field. Clearly the finances, ie tax breaks, etc. afforded the Corporate Pharmers are unequal to the funding available to organic farmers, who are trying to produce food that is clean and ethical- to consumers as well as the Earth. Why should they have to shoulder the cost of labeling, indicating that their food is safe- not GMO- and the mega Corporations, who actually are pushing the experimental products onto an unsuspecting public, not be required to divulge that information?

Please kokua your constituents by passing this bill, so that we can get our foot (or food) in the door of healthy progress.

Sincerely yours,

Sandra Herndon

6165 Alapaki RD

Kapaa HI 96746-9233