

LATE
2-10-09
3:30pm



PO Box 2352, Kealahou, Hawaii 96750
hawaiiseed@hawaiiseed.org
*promoting sustainable agriculture
educating about the risks of genetic engineering*

COMMITTEE ON ENERGY AND ENVIRONMENT

Senator Mike Gabbard, Chair

Senator J. Kalani English, Vice Chair

COMMITTEE ON WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS

Senator Clayton Hee, Chair

Senator Jill N. Tokuda, Vice Chair

Tuesday, February 10, 2009

3:30 p.m.

Conference Room 225

Testimony in SUPPORT SB238

Chairs & Members of the Committees,

My name is Meleana Judd and I am the Oahu Coordinator for Hawaii SEED—a statewide nonprofit dedicated to promoting sustainable agriculture and educating the public about the risks genetic engineering pose to the health of our islands.

If companies are so proud of their genetically engineered product then they should be proud to label it such so that consumers can make informed decisions. I am an aspiring organic farmer who uses home compost in my garden. I frequently have papaya seed which due to its fantastic viability has the tendency to seed itself into my garden. I am concerned that I am currently growing genetically engineered papayas and to this date the University of Hawaii has not taken responsibility for offering a free GE papaya testing programs so farmers can grow with confidence. If I apply for organic certification to increase my opportunity for farm profits I run the risk of being denied to these papayas. Labeling whole foods would help eliminate this problem for farmers in our State.

There is still much to learn about genetic engineering and its threat to our food supply and environment. We invite you to attend a presentation and question session with GMO health expert Jeffrey Smith on Tuesday 2/24 room 224 between 10AM and 1PM.

Thank you for this opportunity to testify.

Malama Pono,
Meleana Judd
Hawaii SEED
Meleanajudd@gmail.com
551-8132

Subject: SB238

From: Kenneth Kamiya <kamiyak002@hawaii.rr.com>

Date: Mon, 09 Feb 2009 14:52:06 -1000

To: ENETestimony@Capital.hawaii.gov

CC: clyde@kahukubrand.com

February 9, 2009

The Senate
The Twenty-Fifth Legislature
Regular Session of 2009

Committee On Energy and Environment, Senator Mike Gabbard, Chair
Committee On Water, Land, Agriculture, and Hawaiian Affairs, Senator Clayton Hee,
Chair

Re: SB238, RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS
Hearing Date: Tuesday, February 10, 2009
Time: 3:30
Place: Conference Room 224

Dear Senators Gabbard and Hee:

My name is Kenneth Kamiya and I am a papaya farmer from Laie, Oahu and I am currently President of the Hawaii Papaya Industry Association. I strongly oppose SB238 relating to labeling of genetically engineered crops.

First, almost all commercial papayas sold locally today are the "Rainbow" variety or hybrids of this papaya. The reason for this is because simply it is immune to the papaya ringspot virus or PRSV. Suffice it to say that without this technology there would be no papaya industry today. Further, this papaya technology has undergone rigorous testing over many years by several government agencies prior to commercial release and this release saved the papaya industry in Hawaii. Secondly, since its release in 1998 I estimate that over 200 million pounds have been sold locally, nationally, and internationally where allowed and we have not had one single adverse reaction. This papaya technology is safe and does not require a "warning label." Thirdly, this papaya is highly nutritious and I might add very delicious. In Hawaii papayas are a staple akin to rice, milk and bread. People know papayas and don't need a label to tell them what it is. Finally, as there is much discussion to make Hawaii food sustainable, this bill just adds one more hoop to jump through and more costs to production not to mention unsubstantiated fear for our food supply. Farmers have a hard time as it is with invasive pests, undeserved regulations, bad weather and bad legislation. We don't need daggers to hasten our demise; on the contrary we need medals for sticking to our profession!

Very truly yours,

Kenneth Y. Kamiya

LATE

Hawaii Papaya Industry Association

**Testimony by Delan Perry, Vice President
Senate Committees on Water, Land, Agriculture, and Hawaiian
Affairs, and Energy and Environment
Tuesday February 10, 2009
3:30 p.m.**

Opposed to SB238

**Senator Clayton Hee, Chair
Senator Mike Gabbard, Chair
Committee Members**

Thank you for the opportunity to testify today. I regret that I can not fly over to discuss the terrible effect this bill would have on Hawaii's Hundreds of papaya farmers, their families and the hundreds of employees.

This bill would place a tremendous economic burden on papaya growers, the only group likely to be affected by this legislation. The burden of affixing a label with ambiguous or negative meaning to our delicious, healthy and popular fruit will have serious negative affects. The general community will not understand why a precautionary label is being required as if it was some warning of health or safety concerns, There are no documented concerns. Issues such as pollen drift or other cross pollination , are easily meet by growers by instituting good practices. For instance, thousands of acres have been certified for shipment to Japan. **There are very good ways to deal with cross pollination and seed supply, but consumer labeling will have no impact.**

As part of the lengthy and thorough deregulatory process with the US government, Canadian government and Japanese government, all agricultural weed, and food safety issues have been thoroughly researched. The USDA, FDA, EPA, and Canadian governments have completed their process and approved the local papaya cultivars such as Laie Gold, Rainbow and Sunup. **No warning labels have**

been required because the new varieties are substantially equivalent to existing varieties, especially concerning any nutritional and allergenic issues.

Some growers and packers label their fruit already. The labels identify premium and consistent quality. These labels are very expensive, adding on average 20 to 25% to the cost of the fruit. Labels such as the ones I apply, are only used when a price premium is likely to result. Adding a label that costs 6 to 8.5 cents per fruit, and cost about 3 cents to apply to fruit and that wholesales for 40 to 50 cents a pound will exceed by far any profit, and consequently put most papaya growers out of business, significantly raise the cost of the most economic and nutritious fruit in the marketplace, or both. A Canadian study estimated that mandatory labeling would cost that country's consumers \$700 million to \$950 million annually.

Increased transparency in the market place is a good goal.

Increased funding for positive marketing will allow growers and the Papaya Industry to communicate the healthy aspects of a highly nutritious fruit with, anti-oxidant properties, a fresh local product with important regularity side effects. Papayas are good for the growers and the health of consumers. They are certainly important to the economic health of most of the farming and rural areas of the state.

Don't kill the industry by misdirected policies like a negative, little understood, ambiguous label, that would cloud consumer awareness, not bring transparency.

Thank you very much,

Sincerely,

**Delan Perry
Vice President**



**Hawaii
Aquaculture
Association**

THE SENATE
THE TWENTY-FIFTH LEGISLATURE
REGULAR SESSION OF 2009

COMMITTEE ON ENERGY AND ENVIRONMENT

Senator Mike Gabbard, Chair
Senator J. Kalani English, Vice Chair

and

COMMITTEE ON WATER, LAND, AND HAWAIIAN AFFAIRS

Senator Clayton Hee, Chair
Senator Jill N. Tokuda, Vice Chair

DATE: Tuesday, February 10, 2009
TIME: 3:30pm
PLACE: Conference Room 225
State Capital
415 South Beretaina Street

SB 238

RELATING TO LABELING OF GENETICALLY
ENGINEERED CROPS.

Honorable Chair Gabbard, Chair Hee, Vice Chair English, Vice Chair Tokuda, and
Committee Members,

The Hawaii Aquaculture Association strongly opposes SB238 which prohibits the sale or distribution of any genetically engineered whole food intended for human consumption in the State that does not have a label conspicuously affixed identifying it as a genetically engineered. Given the high amount of misinformation and fear mongering currently being provided the public on genetically modified crops by extremist opponents, such required labeling would be tremendously harmful to the future production and sales of such products in Hawaii which have greatly decreased global pesticide use and are approved as safe by regulating federal agencies and reputable international health organizations.

Sincerely,

Ronald P. Weidenbach, HAA President

From: Cynthia Unmani Groves [be@taotoearthmpubs.com]
Sent: Tuesday, February 10, 2009 11:14 PM
To: ENETestimony
Subject: RE: SB ~~328~~ and SB237 SEE TESTIMONY BELOW

228

DATE: Tuesday, February 10, 2009
TIME: 3:30 p.m.
PLACE: Conference Room [224] 225
State Capitol
415 South Beretania Street

RE: SB 328
To Whom it may concern,

VERY STRONG SUPPORT. SEE PROOF!

Monsanto's rGBH --Recombinant Growth bovine Hormone a GMO product in milk generated a huge public outcry! There are a number of scientific studies that show Monsanto's rBGH (GMO) and other GMOs have been **shown to be harmful**. This has been in and out of the courts and still is **controversial**. This is good reason GMOs should be labeled, let alone the article below from <http://www.biointegrity.org>.

For the rGBH situation: <http://www.rense.com/health/cancermilk.htm>

The FDA has NOT protected our food supply and drugs on many accounts, and it is time we protect "the right to know" what is in our food at the state level. Hopefully with the new administration we will see a shift. However, Obama put in power over our food supply someone who in the past generated a preemptive bill to try to over ride the states on labeling GMOs.

According to records, Monsanto's rep was closely linked with the FDA when the FDA posted on their website the idea that there is no significant difference between GMO and non GMO foods. The FDA scientists opposed this idea of this. The FDA website posted this sham anyway to make this look like the law and truth! Look at the proof in government documents on biointegrity.org

800+ scientists from around the world want to ban GMOS . See petition to all governments by these scientists: at <http://www.i-sis.org.uk> for complete list of references.

The least we can do is label GMOs! We need to be discriminative!

Sincerely,

Cynthia Groves
Researcher, Retired Health Care Consultant and Author
Kihei, HI 96753

GO TO From <http://www.biointegrity.org> Government documents are on this site!!!!!! Among this article below.

WHY CONCERNS ABOUT HEALTH RISKS OF GENETICALLY ENGINEERED FOOD ARE SCIENTIFICALLY JUSTIFIED

Steven M. Druker
Executive Director

1. Reliance on a Flawed Assumption.

As numerous eminent scientists point out, genetically engineered (GE) foods have not been demonstrated safe through standard scientific testing. Rather, the belief they are safe to eat rests on an unfounded assumption -- the assumption that producing new varieties of food-yielding organisms through recombinant DNA technology

("genetic engineering") is inherently no more hazardous than doing so through traditional breeding. Not only is this assumption empirically unsubstantiated, the weight of the evidence is against it. The following paragraphs explain why.

2. The Fallacy of Equating Gene-Splicing With Traditional Breeding.

Traditional breeding is based on sexual reproduction between like organisms. The transferred genes are similar to genes in the cell they join. They are conveyed in complete groups and in a fixed sequence that harmonizes with the sequence of genes in the partner cell. In contrast, bioengineers isolate a gene from one type of organism and splice it haphazardly into the DNA of a dissimilar species, disrupting its natural sequence. Further, because the transplanted gene is foreign to its new surroundings, it cannot adequately function without a big artificial boost.

Biotechnicians achieve this unnatural boosting by taking the section of DNA that promotes gene expression in a pathogenic virus and fusing it to the gene prior to insertion. The viral booster (called a "promoter") radically alters the behavior of the transplanted gene and causes it to function in important respects like an invading virus -- deeply different from the way it behaves within its native organism and from the way the engineered organism's own genes behave.

First, the foreign gene is constantly in the active mode, continually expressing its product, while the other genes are at rest until there is a specific need for their products. Second, this hyperactivity escapes regulation by the host organism's intricate control system. The foreign gene acts independently of cellular controls, uncorrelated with the other genes, in contrast to the harmonious coordination that exists among the native genes.

Consequently, not only does the foreign gene produce a substance that has never been in that species, it produces it in an essentially unregulated manner that is uncoordinated with the needs and natural functions of the organism.

Accordingly, the director of UK's prestigious Rowett Research Institute has stated: "The perception that everything is totally straightforward and safe is utterly naive. I don't think we fully understand the dimensions of what we're getting into." And molecular biologist Liebe Cavalieri, a Professor at the State University of New York, says it is "simplistic, if not downright simple-minded" to claim that genetic engineering is substantially the same as traditional breeding -- and that to do so is a "sham."

3. Unprecedented Risks.

Due to its deep differences with traditional breeding, genetic engineering entails unprecedented risks to human health: (a) Because the foreign genes enter the host DNA haphazardly and disrupt the region into which they wedge, they can broadly and adversely alter cellular function. (b) The viral boosters ("promoters") artificially attached to the foreign genes are powerful and can induce erratic expression of native genes or activate biochemical pathways that are ordinarily inactive. (c) The transplanted genes' continual and unregulated production of foreign substances drains energy from the organism's vital functions, which can induce metabolic imbalances. It can also upset complex biochemical feedback loops.

Each of these types of disruption can cause the generation of new substances that have never before been in the species, and these substances can be toxic or otherwise harmful. Such harmful byproducts are unpredictable and difficult to detect.

Recent evidence provides added justification for concern about unexpected side effects.

First, the discoveries of the human genome project released in early 2001 confirm that the foundational assumptions of genetic engineering are overly simplistic and seriously unsound. These discoveries also indicate

that recombinant DNA techniques entail greater potential for unpredictable hazards than was previously suspected even by experts advocating a more precautionary approach.

Second, there is mounting evidence of GE plants with substantial -- and unexpected -- alterations in chemical composition:

Aventis's data shows statistically significant differences between T25 herbicide-resistant maize and its conventional counterpart in terms of carbohydrate, amino acid and fatty acid composition.

Research at the Rowett Institute on two lines of GE potatoes found several statistically significant compositional differences between each one and the non-GE parental line. Further, there was even statistically significant difference between the two GE lines, although they were derived from the same line using the same foreign gene -- indicating that *the effects of an inserted gene vary with its position*.

The Public Health Association of Australia (PHAA) analyzed Monsanto's data on three GE plants (herbicide resistant maize and canola, and pesticide-producing maize) and in all three cases discovered several statistically significant differences in chemical composition from the non-GE counterpart. The PHAA report (October 2000) states that the differences cannot be attributed solely to the known products of the inserted genes and cautions that these plants may contain unexpected -- and to date unidentified -- new substances that could be harmful to humans.

Recent investigation by Japanese scientists reveals that Monsanto's data on its "Roundup Ready" soybean, the most widely planted GE crop, shows important differences between the GE bean and its conventional counterpart. For instance, after heat processing of both the GE and non-GE beans, the concentrations of three harmful substances were significantly higher in the GE samples.

Third, research at UK's John Innes Centre confirms that the viral promoter used in almost all GE plants can facilitate various abnormal genetic recombinations. This could lead to serious disruptions or to generation of new and hazardous chemicals. Additionally, experts warn that parts of existing viruses could recombine into novel and more dangerous viruses.

4. Scientists Voice Their Concerns.

In light of the many hazards, *hundreds* of scientists have signed an open letter to the world's governments warning of the hazards and calling for a moratorium on all GE foods. Signatories include professors of biology from Harvard and the Massachusetts Institute of Technology, and the director of the renowned Woods Hole Research Center.

Further, nine scientific experts are so concerned they took the unprecedented step of joining as plaintiffs in a lawsuit organized by the Alliance for Bio-Integrity to reform U.S. Food and Drug Administration (FDA) policy on GE food. By asserting that they regard GE foods to be uniquely hazardous, they refuted the FDA's claim that experts overwhelmingly recognize them as safe. The scientist-plaintiffs include a professor of molecular biology at the University of California, Berkeley; the co-director of Targeted Mutagenics at Northwestern University Medical School; and a renowned expert in plant genetics at the University of Minnesota whose declaration to the court stated: "...there are scientifically justified concerns about the safety of genetically engineered foods, and some of them could be quite dangerous."

Read the [full text of the declaration](#)

Additionally, the respected UK medical journal The Lancet has strongly criticized the presumption that GE foods entail no greater risks of unexpected effects than conventional ones, stating that there are "good reasons to believe that specific risks may exist" and that "governments should never have allowed these products into the food chain without insisting on rigorous testing for effects on health." (May 29, 1999). And on February 5, 2001

the Royal Society of Canada issued a report declaring the presumption of no increased risk to be "scientifically unjustifiable." In the words of the Toronto Star: "The experts say this approach is fatally flawed ... and exposes Canadians to several potential health risks, including toxicity and allergic reactions."

5. Irresponsible Government Oversight.

The scientific experts of the U.S. Food and Drug Administration (FDA) also recognized the unique hazards of GE foods, and they repeatedly warned their superiors about them. This was exposed when our lawsuit forced the FDA to divulge its files. The pervasiveness of the concerns within the scientific staff is attested by a memo from an FDA official stating: "The processes of genetic engineering and traditional breeding are different, and according to the technical experts in the agency, they lead to different risks." Yet, FDA political appointees -- operating under a White House directive "to foster" the biotech industry -- covered up these warnings, professed themselves "not aware of any information" showing that GE foods differ from others, and allowed GE foods to be marketed without testing on the claim there is an overwhelming consensus among experts they are safe.

See the [complete list of FDA documents](#)

This claim of general recognition of safety remains the sole legal basis for the U.S. marketing of GE foods, despite the fact FDA officials are well aware that substantial disagreement exists in the scientific community. Copies of memos from FDA experts and summaries of FDA's extensive misbehavior are on our web site (see side bar). The quotation above is from Document #1 on the list.

If the FDA had told the truth, no GE foods would currently be marketed, since no other country would have approved them if the U.S. had not. Moreover, regulation in other nations ignores GE foods' unique potential for unpredictable problems, fails to employ the tests recommended by the FDA experts, and instead relies on tests that do not adequately screen for the potential hazards about which they warned -- the approach the expert panel of the Royal Society of Canada has termed "scientifically unjustifiable." Further, even though this overly narrow testing has frequently yielded problematic results (as discussed in Section 3), the regulators have routinely ignored them. They have also disregarded glaring weaknesses in the way many of the tests were conducted, as documented by the independent investigations of the Public Health Association of Australia (in its review of testing on three GE plants) and of Japanese scientists who reviewed Monsanto's tests on its "Roundup Ready" soy. These experts found so many irregularities in the safety assessment of the GE soy that they concluded it was "inadequate and incomplete."

6. A GE Food Has Caused Death and Disease - and Those on the Market May Also Be Causing Harm.

Proponents of GE foods often claim that because no definite link has yet been established between the genetic engineering of a food and human disease, it implies these foods are safe. However, a large portion of human food-borne illness develops over a long time through repeated doses of harmful substances. This applies not only to cancer but to many other diseases as well. Further, some diseases can result from a single exposure but still take a long time to manifest. The human variant of "mad cow" disease, which is often fatal, has a latency period of over 12 years from the ingestion of the harmful substance to the initial appearance of the symptoms.

For a more detailed discussion of this fatal food supplement, see section "B" of [the Extended Summary of the FDA's Misbehavior](#)

Accordingly, numerous experts have pointed out that the mere absence [so far] of hard evidence linking the genetic engineering of foods to disease in no way constitutes evidence that foods so produced are safe. They say that due to the hazards entailed by GE foods, it is possible that some of them are causing disease conditions now that will only be clearly documented many years in the future. In this vein, the head of the FDA's Biological and Organic Chemistry Section cautioned agency bureaucrats that lack of proof that a GE food is dangerous does not assure its safety and noted, "in this instance ignorance is not bliss." (FDA Document #7)

[See Doc. # 7](#)

Finally, a GE food supplement has been clearly linked with an epidemic that killed dozens of Americans and seriously disabled thousands more during 1989. While it has not been confirmed that the genetic engineering

process was the cause of the unusual toxic contaminants in that particular supplement, many experts state it is the most likely cause, and the FDA concedes it cannot be ruled out.

In light of all the above, it is necessary to uphold the precautionary approach that is mandated by the food safety laws in both the U.S. and the European Union but which in practice is not being adequately followed in the case of GE foods.