

SB 239

LINDA LINGLE
Governor



SANDRA LEE KUNIMOTO
Chairperson, Board of Agriculture

DUANE K. OKAMOTO
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512

**TESTIMONY OF SANDRA LEE KUNIMOTO
CHAIRPERSON, BOARD OF AGRICULTURE**

BEFORE THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT
Tuesday, February 10, 2009
3:45 P.M.
ROOM 225

**SENATE BILL NO. 239
RELATING TO GENETICALLY ENGINEERED PLANTS**

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to comment on Senate Bill 239. The purpose of this bill is to regulate genetically engineered plants by requiring growers to disclose information on genetically engineered (GE) plants to the department, and require the department to provide public access to this information. We strongly oppose the passage of this bill.

Under federal law, permitting and regulation of field tests of genetically engineered plants is the province of the U.S. Department of Agriculture (USDA). Federal rules recognize that trade secret or confidential business information, such as those included in this measure, may be required in connection with the application. Federal regulations specify in detail the procedure for processing requests for information with regard to these applications, under the federal Freedom of Information Act (FOIA). HDOA has the opportunity to make comments on the federal permit applications.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

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Statement of
THEODORE E. LIU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON ENERGY AND ENVIRONMENT
Tuesday, February 10, 2009
3:45 p.m.
State Capitol Auditorium
Room 225

in consideration of
SB 239
RELATING TO GENETICALLY ENGINEERED PLANTS.

Chair Gabbard, Vice Chair English and Members of the Senate Committee on Energy and Environment.

The Department of Business, Economic Development, and Tourism (DBEDT) understands the intent of SB 239, which would require growers and testers of genetically engineered plants to notify the Hawaii Department of Agriculture and in turn, require the Department of Agriculture to make this information accessible to the public; however we have serious concerns and support the Department of Agriculture in opposition to passage of this bill.

In addition to the reasons cited by the Department of Agriculture, we are concerned about the impact on the local agriculture industry of imposing additional regulations on genetically engineered plants, which are already highly regulated at the federal level. Over-regulation contributes to Hawaii's anti-business image, jeopardizing the success of established businesses as well as the potential of attracting new investment to the State.

Thank you for the opportunity to provide these comments.

Under the State's Uniform Information Practices Act (UIPA), disclosure is not required for:

"(3) Government records that, by their nature, must be confidential in order for the government to avoid the frustration of a legitimate government function; and

(4) Government records which, pursuant to state or federal law including an order of any state or federal court, are protected from disclosure;"

As a result, contents of this measure in regards to disclosure of information to the public appear to be in conflict with Federal and State regulations; Freedom of Information Act (FOIA) and Uniform Information Practices Act (UIPA).

Regarding deregulated genetically modified crops, they are already deemed substantially equal to other similar crops and should not be treated differently.



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February 9, 2009

To: Senate of the State of Hawai'i
Committee on Energy and Environment
ENETestimony@capitol.hawaii.gov

From: The Center for Food Safety
660 Pennsylvania Ave., SE, Suite 302
Washington, DC 20003

RE: Hearing on SB 239, Relating to Genetically Engineered Plants, on Tuesday, February 10, 2009 at 3:45 pm, Conference Room 225, State Capitol

Dear Chairman Gabbard and Members of the Committee:

The Center for Food Safety (CFS) is a non-profit, membership-based, public interest organization dedicated to protection of human health and the environment through improved regulation of food production technologies and promotion of organic and other forms of sustainable agriculture. CFS has extensive experience with the science and regulation of genetically engineered organisms, and frequently provides expert comments on federal rulemaking in this area. CFS counts many Hawaiian citizens among its members.

We are writing to urge passage of SB 239. SB 239 is essentially a "good neighbor" policy that requires those who grow genetically engineered (GE) crops in Hawaii to make basic information about the planting accessible to farmers, gardeners, and the general public via a notice to the Hawaii Department of Agriculture.

SB 239 is needed for several reasons: 1) To give growers of non-genetically engineered and organic crops the information they need to protect their crops from contamination with genetically engineered crops growing nearby; 2) To protect Hawaii's agricultural economy from financial losses due to the inadvertent spread of GE crops; 3) To protect Hawaii's fragile ecosystem from the unintended dispersal of potentially hazardous GE crops; and 4) To increase transparency, reduce secrecy and build trust between growers of GE crops and Hawaiian citizens.

SB 239 is essential to enable growers of non-GE and organic crops to protect themselves from contamination by GE crops

SB 239 is essentially a “good neighbor” policy. Farmers, gardeners and others who work or live near an area where genetically engineered crops are planted have a right to be informed of this fact. Such knowledge is essential should they wish to take protective measures to guard against contamination of their plants by the neighboring GE crop through cross-pollination or seed dispersal. At present, the burden for preventing such contamination rests on growers of conventional or organic crops, not growers of GE crops. One might well argue that the burden should be reversed. Given the current situation, however, SB 239 is vitally needed to give conventional/organic growers the knowledge they need to undertake any necessary preventive measures.

This is not a theoretical concern. Genetically engineered papaya is widely grown in Hawaii, especially on the Big Island. The University of Hawaii extension service has advised organic papaya growers that it is their responsibility to protect their crops from contamination with GE papaya should they wish to do so.¹

“But for purposes of seed production, it is best to prevent any possibility of contamination by pollen from other plants **by covering the unopened flower bud with a light paper bag secured with a string or twist-tie until after the flower opens and the petals fall off.** ... By bagging flower buds on your preferred hermaphrodite papaya plants, you can produce your own papaya seeds that are free of any influence from pollen of genetically engineered papaya plants.”

Obviously, covering numerous flower buds with paper bags and securing them with twist ties is an extremely labor-intensive and time-consuming practice, even for those with small plantings. For those with even modest numbers of trees, the burdens of such protective measures may well make organic production practices economically untenable, effectively eliminating organic production as an option. UH’s extension service is basically telling organic papaya growers that they must bear these costs if there is a risk of contamination and they wish to avoid it, without providing any information on the locations of GE papaya plantings. Such information is obviously of great importance to an organic or conventional grower’s decision on whether to undertake costly and burdensome contamination-prevention measures.

SB 239 is needed to help protect Hawaii’s agricultural economy from financial losses due to the inadvertent spread of GE crops

The papaya industry has been in decline by many different measures even since introduction of the genetically engineered papaya in 1998: lower production, fewer farms, and declining sales revenue. One important reason is the continuing rejection of GE papaya in Hawaii’s largest

¹ Manshardt, R. (2002). “Is Organic Papaya Production in Hawaii Threatened by Cross-Pollination with Genetically Engineered Varieties?” UH CTAHR Cooperative Extension Service, Oct. 2002. <http://scholarspace.manoa.hawaii.edu/bitstream/10125/3338/1/BIO-1.pdf>

papaya export market, Japan.² Clearly, keeping their papaya free of GE content is essential for organic and conventional papaya growers to be able to access important markets for their products. By providing location information for plantings of GE crops, SB 239 would allow growers of organic and conventional papaya and other crops to know whether or not they need to undertake costly measures to prevent contamination in order to protect their markets.

The lack of such information has already had adverse impacts. Papaya farmers and the Hawaii Genetic Engineering Action Network conducted extensive testing in 2004 and found widespread contamination of conventional and organic papaya with genetically engineered varieties. Contamination has forced some papaya growers to cut down their trees. Testing even revealed that UH's conventional papaya line (Waimanalo) was contaminated with GE content.³

Transgenic contamination has had profoundly negative financial consequences on the mainland as well. In 2006, rice farmers in the South lost an estimated \$150 million when their rice crop was contaminated by an experimental (unapproved) variety of genetically engineered rice known as LibertyLink601. Important export markets in Europe and elsewhere rejected the contaminated rice, resulting in lower prices and lost income. In 2000/2001, U.S. corn and corn products were massively contaminated with a genetically engineered variety known as StarLink that was never approved for human consumption due to scientific concerns that it could cause food allergies. Major food companies such as Kraft and Mission Foods were forced to recall over 300 contaminated corn products from supermarket shelves. Corn prices fell as export markets rejected contaminated corn, and farmers suffered large losses.

SB 239 would be one important step towards helping conventional and organic farmers in Hawaii avoid costly contamination episodes that could put them out of business.

SB 239 is needed to protect Hawaii's fragile environment from the unintended dispersal of potentially hazardous GMOs

Hawaii is the world leader in field trials of experimental genetically engineered crops, mostly corn but also many other crops. Some of these GE crops are engineered to produce potent compounds, such as experimental pharmaceuticals. The Federal District Court of Hawaii ruled in 2006 that the unintended dispersal of pharmaceutical-producing GMOs may in some cases pose risks to Hawaii's environment, including its more than 300 threatened or endangered species. Interestingly, the Court ruled that USDA had not undertaken any analysis of these risks before granting "rubber-stamp" approval to these field trials.⁴ SB 239 is a "sunshine" law that would give Hawaiian citizens the right to know what sort of experimentation is being undertaken on the Islands, and also restrain those who might otherwise undertake potentially hazardous experiments from doing so.

² For a fully documented report, see: "The Failure of GE Papaya in Hawaii," Greenpeace International, May 2006. <http://www.greenpeace.org/international/press/reports/FailureGEPapayainHawaii>.

³ Redfeather, N., M. Bondera & S. Sullivan (2006). "Protect what is here now: the fight over Hawaii's agricultural heritage," GeneWatch, May/June 2006.

⁴ See <http://www.centerforfoodsafety.org/pubs/Three%20Case%20Victory%20Summary%2020-07.pdf> for summary of this and two other similar cases.

SB 239 would increase transparency, reduce secrecy and build trust

Many Hawaiian citizens are understandably concerned about the huge numbers of experimental genetically engineered crops being grown on the Islands, but seldom get any real information about these crops. Biotech companies conducting these field trials assure Hawaiian citizens that the crops are safe and pose no risks, but these assurances often ring hollow when basic information about these crops is withheld. SB 239 would increase transparency, reduce secrecy, and hence build trust between biotech firms and the Hawaiian public.

Some have fanned the flames of fear and paranoia in the past by suggesting that GE crop field trials must remain secret because Hawaiian citizens cannot be trusted not to uproot the plants. The overwhelming majority of GE plant destruction episodes have occurred overseas, they are extremely rare in the U.S. In any case, if biotech companies have confidence in the health and environmental safety of their products, the best way they could demonstrate this would be to end their secretive practices. The notification bill would build trust by increasing transparency.

For all these reasons, the Center for Food Safety urges the committee to vote favorably on SB 239. We would be happy to respond to any questions Committee members might have.

Sincerely,

Bill Freese
Science Policy Analyst
Center for Food Safety
bfreese@icta.org
202-547-9359 x14

Testimony Submitted to the

COMMITTEE ON ENERGY AND ENVIRONMENT

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

DATE: Tuesday, February 10, 2009
TIME: 3:45 p.m.
PLACE: Conference Room 225
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

RELATING TO **SB 239**, REGARDING GENETICALLY ENGINEERED PLANTS.
Requires the department of agriculture to notify the public of the location of field tests
and the production of genetically engineered plants.

My name is Richard Manshardt. I am a professor and plant geneticist in CTAHR at UH Manoa. I have 26 years of research and teaching experience in crop sciences at UH, including conventional crop breeding and development of virus-resistant, genetically engineered (GE) 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 SB 239.

This bill requires growers to register plantings of GE crops with the Hawaii DoA and make information about location, type of crop, and name of the grower available to the public. The bill mentions “an acknowledged risk that genetically engineered crops may contaminate organic and conventional crops,” but it offers no information about actual negative biological consequences on agricultural environments or human health resulting from cultivation or consumption of currently commercialized GE crops.

In fact, the biological impacts of current GE crops are not different or greater than those caused by production and distribution of conventional or organic crops. All currently commercialized GE crops 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 to be unique to GE papayas in seven years of testing during development or ten years of production after commercial release. In the last decade, about 200 million pounds of GE fruit have been consumed in the USA without incident. 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 viewpoint that GE crops are no riskier than their non-GE counterparts.

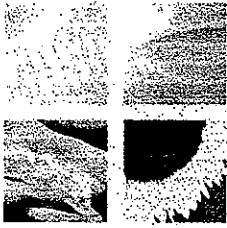
The only GE risk that SB239 addresses is economic loss due to “contamination” of organic crops by pollen drift from GE fields. Cases of cross-pollination of organic crops by GE crop pollen are often cited by activists opposed to GE crops, because organic growers have chosen unilaterally and arbitrarily to define “organic” to exclude GE products (USDA, National Organic Standards). Consequently, organic farmers are concerned that accidental transfer of GE genes to their crops via GE seed or pollen will destroy the basis for the premium paid by consumers who are worried about hypothetical health or environmental risks attributed to GE crops. The lack of real evidence for health or safety concerns unique to GE crops makes it difficult for me to see the logic in the organic vs. GE distinction. For that matter, it is hard to see why the presence or absence of a GE trait should be an issue at all in determining the process-based characteristic of organic status. Logically, as long as a crop is produced using organic methods, it should be marketable as organic, regardless of the genetics of the crop variety. This point is even acknowledged in the National Organic Standards, which permits marketing as organic, crops which contain an unavoidable presence of GE product, due for instance to pollen drift from nearby GE varieties, provided that the crop was otherwise produced by organic methods.

Furthermore, I think the public release of information about locations of GE plantings and growers' names places them at risk from vandalism and harassment by anti-GE activists. Will the State of Hawaii bear any liability for damages caused as a result of disclosing such information?

I also question whether the costs of collecting, organizing, maintaining, and publicizing such information, not to mention the cost and feasibility of enforcing compliance, are worth the effort, in the absence of any demonstrable difference between GE and non-GE foods with respect to human health or environmental safety. I think that organic growers who profit from an artificial distinction cannot expect others to bear responsibility for preserving it. There are other ways than those proposed in SB239 to avoid unwanted cross-pollination or seed mixture that involve simple, good horticultural practices. Among these are planting only seed of authenticated varieties, bagging flowers to prevent crossing, saving seeds only from protected plants or those grown in isolation, and maintaining maximum isolation distances between neighboring fields of the same species.

For the reasons above, I urge legislators to **deny passage of SB 239**.

Finally, my hope, and I believe that of my colleagues at CTAHR, is that as time goes on, organic and GE will find much of value in each other. Organic crops should have the benefits of GE resistance to important diseases and pests, while GE crops may profit from the long-term sustainability of organic production methods.



Hawaii Crop Improvement Association

Growing the Future of Worldwide Agriculture in Hawaii

Testimony By: Alicia Maluafiti
SB 239, Relating to Genetically Engineered Plants
Senate ENE Committee
Tuesday, Feb.10, 2009
Room 225, 3:45 pm

Position: Strong Opposition

Chair Gabbard, and Members of the Senate ENE Committee:

My name is Alicia Maluafiti, Executive Director of the Hawaii Crop Improvement Association. The Hawaii Crop Improvement Association (HCIA) is a nonprofit trade association representing the agricultural seed industry in Hawaii. Now the state's largest agricultural commodity, the seed industry contributes to the economic health and diversity of the islands by providing high quality jobs in rural communities, keeping important agricultural lands in agricultural use, and serving as responsible stewards of Hawaii's natural resources.

Three U.S. regulatory bodies, United States Department of Agriculture (USDA), Environmental Protection Agency (EPA) and Food and Drug Administration (FDA), review and evaluate agriculture biotech technologies. These agencies are provided information required for oversight, including the location and the traits in the crop that lead to improved agricultural genetic characteristics.

Despite criticisms about the regulatory oversight and control of biotech crops, at no time has human health and safety been at risk. With more than a decade of commercialized biotech crops on the market, there has never been a documented incident of any harm to the health of consumers, farmers or the environment anywhere in the world from such crops. There are thousands of scientific and peer-reviewed studies that substantiate the health and safety of biotech crops, and that these crops are substantially equivalent to non-biotech crops and pose no health and safety risks.

Further, farmers who follow agriculture best practices know that discussion with neighbor farmers are necessary to ensure crop varietal purity—no matter if it is conventional, organic, or biotech. HCIA's opposition to public disclosure of either regulated research or approved commercial biotech crops is based on fear of vandalism, or worse, threat of worker safety and destruction of crops by those who are not supportive of the technology. For example, please see the attached May 19, 2000, GenetiX Press Release, Hawaiian Elves Destroy GE Crops and Research on Island of Kauai. More recently, we understand that on Feb. 2, 2009, the 9th Circuit, US Court of Appeals filed and ruled that Center for Food Safety, KAHEA, Friends of the Earth, Inc, Pesticide Action Network, NA challenge for site disclosure of certain genetically modified plants was not justified because of risk of vandalism and possibility that trade secrets would be stolen.

Please reconsider this bill. It does nothing to further responsible science, innovation and technology businesses in Hawaii. Thank you for the opportunity to present testimony.

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PRESS RELEASE: HAWAIIAN ELVES DESTROY GE CROPS AND RESEARCH ON ISLAND OF KAUAI

May 19 2000
GenetiX press release

Hawaiian Elves Destroy GE Crops and Research on Island of Kauai Kauai, HA

- On Tuesday May 9th anti-biotech activists calling themselves the Menehune struck against the biotechnology industry which has invaded the Hawaiian Island. A communique sent by the Menehune stated that --the biotechnology industry has quietly flooded the land with genetically engineered crops.} According to the communique the activists first targeted the Novartis Research and Parent Seed Center near Kekaha, Kauai.

A growing movement continues to grow internationally against genetically modified organisms (GMO*s) such as corn, soya, rapeseed, and genetically altered forests. Genetically modified organisms exist for one reason: the drive for profit by large multinational corporations. The communique continued

--At the Novartis center, we completely destroyed one test plot of corn. We also removed bags over the corn ears that contained pollen and mixed pollen from different corn throughout other test plots to invalidate the experiments.}

The Menehune, a Hawaiian, term which refers to the elven folk or little people, struck a second night, May 10th, at the Kauai Agricultural Resource Center which is operated by the University of Hawaii at Manoa and the USDA Agricultural Research Service. At the second site test crops, mostly fruits such as papayas and pineapples and flowers such as anthuriums and dendrobium orchids, were destroyed.

*Attached is copy of the communique sent by the Menehune. Communique To The Bioengineering Action Network--Aloha,
We are writing to you from the Hawaiian island of Kauai, where the biotechnology industry has quietly flooded the land with genetically engineered crops. We came across your information on the internet, and we ask that you help us distribute the following news.

On Tuesday May 9th, our group went to one of the worst industrial places, the Novartis Research & Parent Seed Center on Kaunualii Hwy (Hwy 50) near Kekaha, Kauai. They hold many permits for transgenic corn, including Bt plants which kill beneficial insects and send insecticides through their roots into the soil. At the Novartis center, we completely destroyed one test plot of corn. We also removed bags over the corn ears that contained pollen and mixed pollen from different corn throughout other test plots to invalidate the experiments.

Novartis has made dozens of dangerous tests at this place. Before Novartis came here, Northrup King tested Roundup Ready and Bt cotton for Monsanto on this piece of earth. You can feel the violence suffered by the Aina, the land, when you walk around here at night.

The next night, May 10th, we went to the Kauai Agricultural Resource Center on the Old King*s Highway (now 580), operated by the University of Hawaii at Manoa and the USDA Agricultural Research Service. Over the course of several hours and under rain showers, we eliminated many test crops, mostly fruits such as papayas and pineapples and flowers such as anthuriums and dendrobium orchids. These crops are subject to genetic mutilation by these institutions, who hold the permits to do so from the USDA. One sign in front of twisted, sickly-looking fruit trees had these words: --Experimental Crop Unfit For Human Consumption Or Animal Feed.} It*s nice when they acknowledge what we*ve been saying all along.

The state government is fully behind this technology, and is lobbying to bring the Biotechnology Industry Organization*s annual meeting here in 2004. Did we get 100% g.e. crops? 50%? We will never know, because they do not tell truth. What is important is that we acted on the information we had. We have no other choice. Along with other methods, we must stop the genetic pollution of our homeland. Kauai imports 97% of its food, and this research does nothing to make us self-sufficient, instead it makes us dependent on greedy corporations. It does not respect the ola, or well-being, of the land or the people. Biotechnology = Hunger.

Signed,

The Menehune

(in Hawaii, the elven folk are called the Menehune, or little people, who perform good deeds for mortals but only at night when they can not be seen)

Routed by:

Peter Bretting

USDA/ARS, National Program Staff

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TESTIMONY BEFORE THE SENATE COMMITTEES ON ENERGY AND ENVIRONMENT AND ON WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS

SB239 RELATING TO GENETICALLY ENGINEERED PLANTS

February 10, 2009

Chairmen Gabbard and Hee and Members of your Committees:

My name is Stephanie Whalen. I am Executive Director of the Hawaii Agriculture Research Center (HARC). I am testifying today on behalf of the center and our research and support staff

HARC strongly opposes SB 239 Relating to Genetically Engineered Plants

This proposed measure requires the Department of Agriculture to notify the public of the location of field tests and the production of genetically engineered plants. There are 2 issues here.

The first is that this measure jeopardizes the health and safety of agricultural workers. The activists involved in opposing this technology have repeatedly demonstrated their unlawful behavior by trespassing and destroying others property.

If you pass this measure you are condoning those activities and knowingly placing people engaged in legitimate permitted agricultural activities at a high risk of harm.

The second with respect to legitimate farm production differences in processes, co-existence has been proven to work through neighborly communication. There are many factors that affect bordering farms and practices which work in reducing or eliminating those potential problems. **THIS SHOULD NOT BE THE BUSINESS OF LEGISLATION.** This are problems that have been encountered by farmers throughout time and been solved by themselves. That practice needs to continue and not become another government interference.

The real problem here is that there are some who refuse to practice co-existence and look for the government to enforce their preferred philosophy and process on others. There is no compromise or co-existence for these folks; there is only their way.

Thank you for the opportunity to comment in **strong opposition to SB239**



TESTIMONY

Senate Committee on Energy and Environment

RE: SB 239 RELATING TO LABELING OF GENETICALLY ENGINEERED PLANTS

Chair Gabbard and Members of the Committee:

My name is Dean Okimoto, President of the Hawaii Farm Bureau Federation. Hawaii Farm Bureau is Hawaii's general agriculture advocacy organization, representing farmers and ranchers across the state. Our mission seeks to promote a healthy and viable agricultural industry for the State. HFBB is strongly opposed to SB239, requiring the disclosure of locations of genetically engineered plant locations.

HFBB's major objection to this measure stems from the history of destruction of test plantings by activists upon learning of the location of the GE plantings. Years of research can be lost. The ultimate question is what will the information be used for.

If the purpose of disclosure is so people will know where the plantings are located to protect their plants, pollen movement is a two way street. Just as farmers may be concerned about pollen drift on to their crop, growers of GE crops are equally concerned about drift on to their crop.....especially those growing seed since the resultant hybrid may not be what you expected if their id pollen drift. Concern about pollen drift is not new. Commercial farmers practice pollen drift control measures regularly ...if you plant yellow and white corn it is important that plantings be staggered so you do not end up with a bicolored ear. This is no different from controlling GE pollen drift.

Some will object about our position, stating that they are members of the Farm Bureau, and do not agree. As mentioned earlier, we are a general agriculture advocacy organization. We advocate for all types of agriculture, whether it be conventional, biotech or organic. We do not favor one over the other. In this particular case, biotech crops and products have been available in the marketplace for many years without adverse affect. Methods to segregate crops to preserve identity preservation is well documented and available to those wishing to do so. As such, we believe this measure to unfairly target one group against the other.

As Farm Bureau, we believe GE technology to be just another tool in the long line of advancements in plant breeding. There are many important issues that are before the legislature to address the long term viability of agriculture.

HFBB respectfully requests that this measure be held and focus be provided to bills that will contribute to the long term viability to Hawaii's agriculture and provide towards our increased self sufficiency. Thank you for this opportunity to provide our opinion on this matter.



LIFE OF THE LAND

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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

SB 238 Labeling GE Crops

SB 237 GE Fish

SUPPORT

SUPPORT

3:45 p.m.

Conference Room 225

SB 239 GE Plants

SB 709 GE Taro

SUPPORT

SUPPORT

Aloha Chairs Gabbard, Hee, Vice Chairs English, Tokuda, and Members of the Committees,

My name is Henry Curtis and I am the Executive Director of Life of the Land, Hawai'i's own energy, environmental and community action group advocating for the people and `aina for almost four decades. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Life of the Land's Position

Genetically Engineering is a very young field of study (3 decades), and the terminology, techniques, and risks are undergoing rapid change. Reasonable regulations are trailing badly. Proponents are hiding behind terms like "life sciences". Some positive actions have occurred (creating cheap insulin in labs), however, the money is in experimental research, not in safety or risk analysis. Focusing on the money that can flow into the state and not the risks that the public will face is short-sighted.

Hawai'i should adopt the Precautionary Principle for all genetic engineering projects. The Precautionary Principle places the burden of proof on the proponent of new technologies. The requirement is to demonstrate, not absolutely but beyond reasonable doubt, that what is being proposed is safe.

Genetic Engineered crops, if grown at all, should be located within labs and enclosed structures. If they are grown outside, the fields should be clearly identified.

All consumer goods (food, clothing) containing genetically engineered materials and ingredients should be clearly labeled.

There must be a ban on Genetic Engineering of cultural crops such as kalo.

Genetic Engineering must never be used in species located in the open ocean where they can intermingle with wild ocean species.

Open field growing of Genetic Engineered pharmaceuticals, especially in food crops must be banned.

Background

Genetically engineered insulin using recombinant DNA technology was approved for use by diabetics in 1982. The first transgenic domestic animal, a pig was created in 1985. The gene that is responsible for cystic fibrosis was found in 1990. The Human Genome Project to map the entire human genome was launched in 1990.

Risks

Scientists at the Centers for Disease Control and Prevention have successfully reconstructed the influenza virus strain responsible for the 1918 pandemic. (www.cdc.gov/od/oc/media/pressrel/r051005.htm). The Spanish Flu Pandemic (La Grippe Espagnole, La Pesadilla) affected 1 billion people, killing 50-100 million people in 1918-19. More people died from the Spanish flu than the Black Death Bubonic Plague (1347-51) or from World War I (1914-18).

Hawaii regulates the importation of microorganisms and their movement between regulated labs, but not their creation in unregulated facilities. In Hawai'i it is legal to genetically engineer the avian bird flu and other deadly diseases. State laws pre-date genetic engineering, and policy-makers encouraging genetic research do not want to send any "wrong" signals by regulating this new technology.

Animal-Human Hybrids Spark Controversy

by Maryann Mott (National Geographic News, January 25, 2005)

Scientists have begun blurring the line between human and animal by producing chimeras—a hybrid creature that's part human, part animal. Chinese scientists at the Shanghai Second Medical University in 2003 successfully fused human cells with rabbit eggs. The embryos were reportedly the first human-animal chimeras successfully created. They were allowed to develop for several days in a laboratory dish before the scientists destroyed the embryos to harvest their stem cells. In Minnesota last year researchers at the Mayo Clinic created pigs with human blood flowing through their bodies. And at Stanford University in California an experiment might be done later this year to create mice with human brains. But creating human-animal chimeras—named after a monster in Greek mythology that had a lion's head, goat's body, and serpent's tail—has raised troubling questions: What new subhuman combination should be produced and for what purpose? At what point would it be considered human? And what rights, if any, should it have? There are currently no U.S. federal laws that address these issues.

What's caused the uproar is the mixing of human stem cells with embryonic animals to create new species.

Human Born to Mice Parents? For example, an experiment that would raise concerns, he said, is genetically engineering mice to produce human sperm and eggs, then doing in vitro fertilization to produce a child whose parents are a pair of mice. Last year Canada passed the Assisted Human Reproduction Act, which bans chimeras. Specifically, it prohibits transferring a nonhuman cell into a human embryo and putting human cells into a nonhuman embryo.

Irv Weissman, director of Stanford University's Institute of Cancer/Stem Cell Biology and Medicine in California, is against a ban in the United States. "Anybody who puts their own moral guidance in the way of this biomedical science, where they want to impose their will—not just be part of an argument—if that leads to a ban or moratorium. ... they are stopping research that would save human lives," he said.

Mice With Human Brains. Weissman has already created mice with brains that are about one percent human. Later this year he may conduct another experiment where the mice have 100 percent human brains. This would be done, he said, by injecting human neurons into the brains of embryonic mice.

Mahalo,

Henry Curtis

From: nancy redfeather [nredfeather@kohalacenter.org]
Sent: Monday, February 09, 2009 4:00 PM
To: ENETestimony
Subject: Testimony for SB 239 Support with Suggestion and SB 709 Support with Reservation

Testimony given by:

Nancy Redfeather
Kawanui Farm
P.O. Box 906
Kealakekua, Hawai'i
96750
808-322-2801

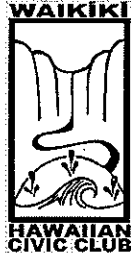
Statement on SB 239: This bill is particularly important to farmers, market gardeners, home producers, school gardens, and community gardens who choose to grow corn and/or soy beans. Both of these crops are grown in "experimental" field trials in the open air on Maui, Kauai, Molokai, and Oahu. Experimental meaning that the "traits" have NOT yet proven to be effective or safe for production or consumption. Both of these crops will easily cross pollinate non GMO varieties in the same geographical region, up to a few miles depending on wind flow and pollinator travel. The Public has a right to know what types of genetic material might end up in their food.

Suggestion: I did not see "the plan" for HDOA to inform the public of these trials. I suggest they post it in a newspaper for everyone to see, and perhaps send it to CTAHR Extension Stations to "post" for the public to read. Or, perhaps there could be an announcement sent out to those farmers, gardeners, teachers, and home producers who sign up to be notified "by island." That would probably be the simplest way.

Statement with Reservation on SB 709: Although this bill seeks to protect Hawaiian Taro, it does not go far enough. If ALL taro in the state is not protected, it will only be a matter of time, before genetically engineered hulis will be out in the environment, mixed up, and passed around. That is the "traditional" way the Hawaiians and farmers and gardeners distribute taro keikis. Why not protect ALL varieties of Taro from being grown in the State of Hawai'i? It is a minor crop to UH Manoa, but a major food security crop for the state, and elder brother of the Hawaiian people. Please do not allow any Taro to be genetically engineered. Dr. Susan is quite capable of other work.

Mahalo,

Nancy Redfeather
Kawanui Farm
Kona



Waikīkī Hawaiian Civic Club

President, Malia Nobrega
malianob@gmail.com

E HUKI LIKE!

TESTIMONY IN SUPPORT OF SB 239, RELATING TO GENETICALLY ENGINEERED PLANTS

Hearing Date: February 10, 2009

Time: 3:45pm

Conf. Room: 225

Committee: ENE

Submitted by: Malia Nobrega, President, Waikīkī Hawaiian Civic Club

Mahalo nui for the opportunity to provide testimony in support of SB 239 relating to genetically engineered plants and requiring the Department of Agriculture to notify the public of the location of field tests and the production of genetically engineered plants.

My name is Malia Nobrega and I'm the President of Waikīkī Hawaiian Civic Club and a Native Hawaiian concerned about the sustainability of our unique environment that my kupuna took care of and lived off of, and that Native Hawaiians today struggle to protect for our use and for generations to come.

Waikīkī Hawaiian Civic Club supports this bill because it is important that the people of this aina be informed of any such project especially when it is done in an open field. Here in Hawaii the wind blows, the rain falls, and many of us still gather from our aina to feed our people. If there is any chance of contamination of our food or any health hazards we need to know about it.

Our club has members and family that live on the main islands in Hawaii. Our members and family members from Kauai have expressed their concerns regarding the exposure to such open field tests. Our keiki attending Waimea Canyon School on Kauai were sent home from school after experiencing nausea, watery eyes, and fainting in school. We cannot expose our kupuna, our makua, nor our keiki to these kinds of open field tests. We say "AOLE!!!!"

Paoakalani Declaration Addresses This Issue

Waikīkī Hawaiian Civic Club helped to organize and participated in the two Ka 'Aha Pono-Native Hawaiian Intellectual Property Rights Conference. This conference gathered Kanaka

Maoli including kumu hula, elders, artists, teachers and academics, attorneys, and many others concerned about this very topic. Those gathered at Ka 'Aha Pono produced the Paoakalani Declaration which is a unifying statement that collectively shares the responsibility to determine a pono future for Hawai'i nei, her culture, and indigenous peoples. The Paoakalani Declaration addresses the issue of bioprospecting and states that:

- We have the right to free, prior and informed consent before research relating to our biological resources commences. Researchers, corporations, educational institutions, government or others conducting such research must fully and entirely inform Kanaka Maoli regarding the purposes of their research and recognize our right to refuse to participate.
- Biological samples are being transferred, traded, bought, and sold without the agreement or consent of our peoples, in violation of our inherent human rights.
- Although biological and genetic samples have been transferred, sold, patented or licensed, Kanaka Maoli never relinquished our rights to our biological and genetic materials and, therefore, call for the rightful repatriation of such samples and due compensation.
- We further support a moratorium on patenting, licensing, sale or transfer of any of our plants, animals and other biological resources derived from the natural resources of our lands, submerged lands, waters, and oceans until indigenous communities have developed appropriate protection and conservation mechanisms.

Waikīkī Hawaiian Civic Club's Commitment To Protect Hawai'i's Biodiversity

The Association of Hawaiian Civic Clubs has adopted four resolutions relating to research at the University, the collective intellectual property rights of Native Hawaiians, and the protection of Hawai'i's flora and fauna, over the past four years. One resolution adopted in 2002 calling for regulation of bioprospecting. Two others passed in 2003 related to the collective intellectual property rights of Native Hawaiians as well as a proposed Hawaiian Genome Project at the UH Medical School. In 2005, the Association of Hawaiian Civic Clubs urges the Hawai'i State Legislature to enact legislation to protect Hawai'i's flora and fauna. Collectively, these Civic Club resolutions and the Paoakalani Declaration evidence a strong conviction of the Hawaiian community to protect Hawai'i's biological resources and our related rights. The resolutions and the Declaration also indicate our concern regarding activities of the University and its researchers to undermine our rights.

In January 2006, the O'ahu Council of Hawaiian Civic Clubs has taken a position against the manipulation and patenting of our biodiversity, namely our kalo.

We continue to produce educational videos and organize community workshops related to protecting our biodiversity in Hawai'i and it's implications. We have committed ourselves to work to create legislation and continue educational efforts in the community regarding our biodiversity. In particular, the Waikīkī Hawaiian Civic Club offers its assistance to your committee.

Mahalo again for this opportunity to testify and share my mana'o regarding Hawai'i's biodiversity.

Aloha,
Malia Nobrega

From: Melissa Yee [drmlsukyo@yahoo.com]
Sent: Monday, February 09, 2009 10:55 AM
To: ENETestimony
Subject: Testimony in support of SB239 Relating to Genetically Engineered Plants

--- On Mon, 2/9/09, Melissa Yee <drmlsukyo@yahoo.com> wrote:

> From: Melissa Yee <drmlsukyo@yahoo.com>
> Subject: Testimony in support of SB239 Relating Genetically Engineered
> Plants
> To: ENETestimony@Capitol.hawaii.gov
> Date: Monday, February 9, 2009, 9:44 AM
> RE: Hearing before Committee on Energy and Environment, Chairperson
> Senator Mike Gabbard Tuesday, February 10, 2009 3:45 pm Conference
> Room 225 State Capitol From Dr. Melissa Yee 1480 Kinau Street
> Honolulu, Hawaii 96814 Phone 292-1179
>
> An article in the Honolulu Star Bulletin Monday, January 26, 2009
> headlines "Indian river a drug cesspool"
> and describes the conditions of the drinking water in Patencheru,
> India filled with runoff from Indian pharmaceutical drug companies
> dumping ingredients into the stream. The locals have no other source
> of drinking water which is coming from wells and tributaries
> downstream from the factories. Last year the Associated Press reported
> that a plethora of drugs were found in American drinking water as a
> result of throwing away old prescriptions into toilets and sinks in
> the belief that the water would dilute the chemicals and render them
> harmless or less toxic. For over fifty years the toxic waste product
> from the phosphate fertilizer and aluminum industries fluosilicic acid
> has been ADDED to water supplies under the guise of preventing tooth
> decay. Now in the twenty first century the oceans and rivers can no
> longer bear the concentration of pollutants, and our food and
> drinking water have become harmful to our health. Only those who have
> the money to purchase organic and "natural" foods have a choice.
> Here come the biotech industries to save Hawaii's faltering economy
> and buy up the fallow fields, and the result is that GMO seeds from
> the experimental fields are drifting into the fields containing non
> GMO crops and polluting them. In the name of food to feed the masses,
> the damage has been done, and any legislator or biotech personnel who
> thinks there will be no long term consequences is closing his or her
> eyes to the truth.
> Unfortunately the Pandora's box has already been opened, and this
> legislation regarding GMO in the 2009 session is a small part of what
> we can do to save our food.
> Therefore, I strongly support this bill to notify the public of the location of field tests
and the production of GE plants. The GMO supporters will loudly protest calling attention to
the presence of its crops and claim they are supporting Hawaii's economy and providing jobs.
> Unfortunately the "masses" will suffer if nothing is done at this early stage. The health
statistics of people on the North Shore and Waialua already indicate that contamination of
the soil and water is taking its toll.

Pineapple and sugar cane provided jobs to the people who were imported like slaves to work the fields for the profit of the corporations. Now we see the compromise of our health and the pollution of our fields once again for the profit of the biotech corporations. Please take a strong stand to identify these fields which contaminate other crops by man-made intervention. We must stop the continued experimentation of GMO seeds in our islands. Please pass this bill.

>

> Respectfully submitted,

> Dr. Melissa Yee

From: FOSTER, RAY [AG/2004] [ray.foster@monsanto.com]
Sent: Monday, February 09, 2009 8:57 AM
To: ENETestimony
Subject: OPPOSE SB 239 Relating to Genetically Engineered Plants

COMMITTEE ON ENERGY AND ENVIRONMENT, Senator Mike Gabbard, Chair; Senator J. Kalani English, Vice Chair
DATE: Tuesday, February 10, 2009
TIME: 3:45 p.m.
PLACE: Conference Room 225, State Capitol, 415 South Beretania Street

Senators and Committee Members,

I am a Hawaii Resident and have worked in Hawaii agriculture for 18 years. I OPPOSE SB 239 .

The location of genetically engineered crops is currently available to any serious farmer (organic, conventional or biotech) in HODOA records via the freedom of information rules now in place. These locations are also generally known in the agricultural community.

There is no public health risk, environmental risk associated with genetically engineered crops. Serious farmers work together to avoid the market risks associated with neighboring crops of all kinds, not only biotech to organic.

Passage of this bill will place onerous and ineffective regulations on the HODOA. This bill brings no value to our agricultural community and makes useless work for our State agencies.

Respectfully,

Raymond Foster

PO Box 40

HCO1 Box 104

Kaunakakai, HI 96748

*Raymond J. Foster
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From: FOSTER, RAY [AG/2004] [ray.foster@monsanto.com]
Sent: Monday, February 09, 2009 9:06 AM
To: ENETestimony
Subject: FW: OPPOSE SB 709 Relating to Genetically Engineered Plants

COMMITTEE ON ENERGY AND ENVIRONMENT, Senator Mike Gabbard, Chair; Senator J. Kalani English, Vice Chair
DATE: Tuesday, February 10, 2009
TIME: 3:45 p.m.
PLACE: Conference Room 225, State Capitol, 415 South Beretania Street

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Passage of this bill will place onerous and ineffective regulations on the HODOA. This bill brings no value to our agricultural community and makes useless work for our State agencies.

Respectfully,

Raymond Foster

PO Box 40

HCO1 Box 104

Kaunakakai, HI 96748

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TESTIMONY ON SB 239
SENATE COMMITTEE
ON
ENERGY AND ENVIRONMENT

CHAIRPERSON: Senator Mike Gabbard
BILL NO: SB 239 GE Crop Notification
TITLE: Relating to GE Crop Planting Notifications
HEARING DATE & TIME: Tuesday, February 10, 2009 3:45 PM
HEARING LOCATION: Conference Room 225

TO: Chairperson Senator Mike Gabbard and Members of the Committee:

My name is Don Gerbig, a retiree from the agricultural industry, a private citizen, and an advocate of sound science and the use of biotechnology (genetic engineering) to improve our crops and fight hunger in the world.

To first address the preamble of inaccuracies. Organic and conventional crops may contaminate genetically engineered crops too. What is going to be done to protect them? Inadvertent transfer of pollen works both ways. It's part of nature, and part of farming. It is unfair to single out a farmer that is growing a genetically engineered crop and make him fill out a bunch of paper to register his crop and not other farmers that may be growing a virus diseased crop next door that could put the biotech farmer out of business.

What's good for the goose is good for the gander.

As to contaminating an organic crop with pollen, this propaganda piece is forever being used by certain anti-biotech groups wanting to eliminate genetic engineering from the face of the earth. I only wish I had the money they do to keep spouting this propaganda.

If the organic grower has exercised proper precaution against contamination of his organic crop, and contamination occurs, the crop may still be certified as organic. The definition of such circumstances are what is called "unavoidable residual environmental contamination." Thus, the organic grower does have protection in keeping the crop organic when precaution has been exercised.

I urge the committee to not pass this bill that will surely increase farmers costs to do business and unfairly favor only organic growers.

Don Gerbig
6 Tulip Place
Lahaina, HI 96761-8322



SIERRA CLUB HAWAII CHAPTER

P.O. Box 2577, Honolulu, HI 96803
808.538.6616 / hawaii.chapter@sierraclub.org

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

February 10, 2009, 3:45 P.M.

TESTIMONY IN SUPPORT OF SB 239

Chair Gabbard and members of the Committee:

The Sierra Club, Hawaii Chapter, with nearly 5500 dues paying members statewide, supports SB 239, requiring the disclosure of the location of field tests and production of genetically engineered plants.

Genetically modifying organisms—the practice of splicing DNA from bacteria, viruses and other organisms into plants to lend them certain traits, like resistance to chemical weedkillers—poses extreme risks to our common environment. Manipulation of genetic material by inserting bacteria, plant, animal, and human genes into food products is a radical departure from traditional breeding techniques and represents an unprecedented break with natural processes.

In Hawaii, such genetically modified organism (GMO) biotechnology is mainly experimental. Most of the experiments are taking place not in a laboratory, but in the open air, in locations concealed from the public. In fact, Hawaii has had more plantings of experimental biotech crops than anywhere else in the nation—or the world.

Hawaii's small size, its close proximity of agricultural and populated areas, and its unique, sensitive, natural environment combine to dramatically raise the stakes of testing GMO crops here. A December 2005 report from the Inspector General of the US Department of Agriculture (USDA), found that USDA's inadequate safeguards "increase the risk that genetically engineered organisms will inadvertently persist in the environment before they are deemed safe to grow without regulation."

The public deserves to know the magnitude of the problem in Hawaii. To adequately protect the environment and the public, full disclosure, just as with hazardous waste sites, should be provided to the public.

Thank you for the opportunity to testify.