

**SB 238**

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME LEINAALA FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
File:

Senate Committee on Energy and Environment

Senate Committee on Water, Land, Agriculture and Hawaiian Affairs

SB 238, RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS

Testimony of Chiyome Leinaala Fukino, M.D.  
Director of Health

February 10, 2009  
3:30pm

1 **Department's Position:** The Department understands the intent of this bill but has concerns regarding  
2 this proposal; and therefore, respectfully opposes this bill

3 **Fiscal Implications:** The Department opposes this measure because it would adversely impact the  
4 priorities set forth in the Executive Biennium Budget for Fiscal Years 2009-2010.

5 **Purpose and Justification:** : This bill amends HRS Chapter 328 to require the labeling of any  
6 genetically engineered whole food that is intended for human consumption in the State of Hawaii.

7 We understand the intent of this measure and respect the concerns of Hawaii's consumers to  
8 have an informed choice. However we are not in a position to enforce such legislation as the  
9 Department does not conduct work in recombinant DNA; and therefore, it does not possess the requisite  
10 scientific expertise and experience to test and determine whether a suspected food product has been  
11 genetically engineered. Incorporation of this measure into HRS Chapter 328 would create  
12 unenforceable situation and would not accomplish the intent of the legislation.

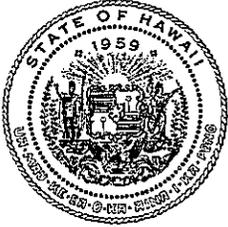
13 Currently, there is no conclusive scientific evidence of negative health effects associated with  
14 genetically engineered foods or that the process of genetic modification is somehow inherently unsafe.

1 The U.S. Food and Drug Administration (FDA) states it has no information that the use of  
2 biotechnology creates a class of food that is different in quality, safety or any other attribute from food  
3 developed using conventional breeding techniques; and therefore does not support mandatory labeling of  
4 genetically engineered foods.

5 Therefore, based on current information, we feel there is not enough scientific evidence to  
6 legislate mandatory labeling of genetically engineered foods.

7 Whether labeling is important for economic, market, or trade reasons is an issue we defer to  
8 other departments.

9 Thank you for this opportunity to testify.



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

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

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355  
Fax: (808) 586-2377

Statement of  
**THEODORE E. LIU**  
Director  
Department of Business, Economic Development, and Tourism  
before the  
**SENATE COMMITTEE ON ENERGY AND ENVIRONMENT**  
and the  
**SENATE COMMITTEE ON WATER, LAND, AGRICULTURE,  
AND HAWAIIAN AFFAIRS**  
Tuesday, February 10, 2009  
3:30 p.m.  
State Capitol Auditorium  
Room 224

in consideration of  
**SB 238**  
**RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS.**

Chair Gabbard, Chair Hee, Vice Chair English, Vice Chair Tokuda and Members of the Senate Committees on Energy and Environment and Water, Land, Agriculture, and Hawaiian Affairs.

The Department of Business, Economic Development, and Tourism (DBEDT) opposes SB 238, which would require the labeling of any genetically engineered whole food sold in the State of Hawaii intended for human consumption

Foods produced using the tools of biotechnology are subject to the same labeling requirements imposed by the U.S. Food and Drug Administration on other foods. These requirements are based on providing valuable information to the consumer concerning health, safety and nutrition. If a genetically engineered food product has the same nutritional value and does not pose any valid, different health or safety concern than its conventional or organically produced counterpart, required labeling would impose an unfair business expense. There is also the concern that labeling could generate unnecessary fears about products that demonstrate no increased safety risk.

Thank you for the opportunity to provide these comments.

**LINDA LINGLE**  
Governor



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

**SANDRA LEE KUNIMOTO**  
Chairperson, Board of Agriculture

**DUANE K. OKAMOTO**  
Deputy to the Chairperson

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

**BEFORE THE SENATE COMMITTEES ON ENERGY AND ENVIRONMENT  
AND  
WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS  
TUESDAY, FEBRUARY 10, 2009  
3:30 PM  
ROOM 225**

**SENATE BILL NO. 238  
RELATING TO LABELING GENETICALLY ENGINEERED CROPS**

Chairpersons Gabbard and Hee and Members of the Committees:

Thank you for this opportunity to provide testimony on Senate Bill No. 238, relating to labeling genetically engineered crops. The purpose of this Act is to require the labeling of any genetically engineered whole food that is sold in the State of Hawaii intended for human consumption. This bill amends Chapter 328-1, 328-6, Hawaii Revised Statutes by adding new sections, definitions, and language regarding genetically engineered crops, whole foods, and modern biotechnology. The department opposes this measure.

Foods that have been deregulated through the federal regulatory process have been deemed not substantially different from conventional breed crops and we see no need for this bill.

We also note that state labeling laws would be pre-empted by federal labeling requirements or laws such as the Fair Packaging and Labeling Act.

William P. Kenoi  
Mayor



Diane L. Ley  
Interim Deputy Director

## County of Hawaii

### DEPARTMENT OF RESEARCH AND DEVELOPMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252  
(808) 961-8366 • Fax (808) 935-1205  
E-mail: chresdev@co.hawaii.hi.us

February 10, 2009

The Honorable Mike Gabbard, Chair

And Committee Members for the Senate Committee on Energy & Environment

The Honorable Clayton Hee, Chair

And Committee Members for the Senate Committee on Water, Land, Agriculture & Hawaiian Affairs

Hawai'i State Capitol, Room 225

415 South Beretania Street

Honolulu, Hawai'i 96813

Re: Senate Bill 238, Relating to labeling of genetically engineered crops

Dear Chairpersons Gabbard and Hee and Committee Members:

Thank you for this opportunity to provide comments on Senate Bill 238, relating to the labeling of genetically engineered crops. The County of Hawai'i Department of Research and Development strongly opposes this bill to require the labeling of Hawai'i grown farm products that are genetically engineered.

This bill unfairly targets Hawai'i's papaya industry, as that is the only food crop raised in Hawai'i that utilizes genetically engineered plant materials. The bill does nothing to address the fact that as much as 70-75 percent of the food products on today's supermarket shelves across the nation and throughout Hawai'i contain food products that are produced utilizing generically engineered plant materials.

Senate Bill 238 is troubling in that it appears to have an underlying agenda to prohibit the production of genetically engineered crops in Hawai'i. As stated within the introductory statement the "Mandatory labeling of genetically engineered whole foods: ... (2) Would provide the basis for limiting dispersal of seeds from genetically engineered whole foods into the agricultural landscape and environment, thus mitigating the adverse environmental, agricultural, and economic impacts accompanying genetically engineered crop contamination episodes; ..."

Honorable Mike Gabbard, Chair & Committee Members  
Senate Committee on Energy & Environment  
Honorable Clayton Hee, Chair & Committee Members  
And Committee Members for the Senate Committee on Water, Land, Agriculture &  
Senate Bill 238, Relating to labeling of genetically engineered crops  
February 10, 2009  
Page 2.

The proposed requirement for labeling does in no way address the choice of farmers to plant genetically engineered crops such as papaya that have been proven to be safe for planting in the field and for consumption by the U.S. Department of Agriculture, the U.S. Food and Drug Administration, and the U.S. Environmental Protection Agency. The Department of Research and Development stands behind the vetted decision-making of these federal agencies and the majority of Hawai'i's papaya farmers who have chosen to plant genetically engineered papayas rather than succumb to the devastation of Papaya Ringspot Virus and go out of business.

In Hawai'i, consumers do have a choice in the types of produce that they make while at the supermarket or local farmers markets. They may choose labeled Hawai'i grown organically certified products, as our local certification process prohibits the use of genetically modified plant materials.

Again, thank you for your consideration of these concerns with respect to this initiative, and we encourage the bill to be held in Committee.

Sincerely,



Diane Ley  
Interim Deputy Director



C E N T E R F O R  
FOOD SAFETY

660 PENNSYLVANIA AVE., SE, SUITE 302, WASHINGTON, DC 20003  
(202) 547-9359 ⊃ FAX (202) 547-9429  
2601 MISSION ST., SUITE 803, SAN FRANCISCO, CA 94129  
(415) 826-2770 ⊃ FAX (415) 826-0570  
WWW.CENTERFORFOODSAFETY.ORG

February 9, 2009

To: Senate of the State of Hawai'i  
Committee on Energy and Environment  
Committee on Water, Land, Agriculture, and Hawaiian Affairs  
ENETestimony@capitol.hawaii.gov

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

RE: Hearing on SB 238, Relating to Labeling of Genetically Engineered Crops, on Tuesday,  
February 10, 2009 at 3:30 pm, Conference Room 225, State Capitol

Dear Chairmen Hee and Gabbard, and Members of the Committees:

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 238. SB 238 is essentially a "right to know" policy that allows consumers to know whether the whole food produce they purchase is genetically engineered. It would require that genetically engineered whole foods (produce like papaya and corn-on-the-cob) carry a label identifying them as "genetically engineered."

**Reasons why SB 238 is needed**

Hawaii has a reputation for producing high-quality foods, and its unique agricultural heritage depends upon maintaining this reputation. Hawaii is also home to unique and fragile ecosystems that require protection. SB 238 is designed to protect Hawaii's agriculture, environment and

economy from the unintended spread of genetically engineered (GE) crops, also known as GMOs. Contamination of conventional and organic crops with GMOs nationally has cost farmers and food companies hundreds of millions of dollars in lost sales due to food recalls, reduced prices and rejection by export markets. The Federal District Court of Hawaii ruled in 2006 that the unintended dispersal of GMOs may in some cases also pose risks to Hawaii's environment, including its more than 300 threatened or endangered species

The bill is also needed in response to overwhelming public opinion in favor of such labeling. For instance, a poll by the University of Hawaii's College of Tropical Agriculture and Human Resources shows that 85% of Hawaii's residents consider it important that genetically engineered fruit be labeled as such. Numerous polls on the mainland have likewise found strong support (80 to over 90% range) for even stricter labeling measures that involve labeling processed food products for the presence of ingredients derived from genetically engineered crops. SB 238 would not apply to such processed foods, but rather only to whole produce that is genetically engineered, making it easier and less costly to administer.

**SB 238 would help prevent contamination of conventional/organic produce with GMOs**

Whole genetically engineered foods – such as papaya, sweet corn and squash – can reproduce. Discarded seeds of whole genetically engineered foods that end up in cropland or natural areas may propagate, contaminating conventional crops or the environment. At present, Hawaiians have no way of knowing whether fruits or vegetables they purchase are genetically engineered. Labeling would provide the basis for education on the need to limit dispersal of genetically engineered crop seeds (or other viable crop material), thus preventing the adverse impacts of their unintended spread.

Extensive testing conducted by papaya farmers and the Hawaii Genetic Engineering Action Network found widespread contamination of conventional and organic papaya with genetically engineered varieties. Contamination has forced some papaya growers to cut down their trees. Rejection of genetically engineered papaya by Japan and Europe means loss of export markets and lower prices. Some of the transgenic contamination is thought to originate from trees sprouting from the seeds of GE papaya that had been discarded.

**SB 238 would not increase food costs**

Unlike genetically engineered food labeling proposals introduced elsewhere, this bill applies only to *whole* GE foods, not processed foods that contain ingredients from genetically engineered crops. The only genetically engineered whole foods on the market today are papaya, sweet corn and squash. Labeling of produce is already standard industry practice. The bill would only require an additional notice on an existing label identifying the whole food as genetically engineered.

**SB 238 would have absolutely no adverse effect on Hawaii's seed industry**

Seed/biotechnology firms have made Hawaii the top nation in the country for field trials of experimental genetically engineered crops due to its year-round growing climate. Since these

companies produce exclusively *experimental* GE crops (primarily corn) that are NOT meant for human consumption but rather strictly for research purposes, SB 238 would have absolutely no impact on this industry.

For these reasons, the Center for Food Safety urges the committee to vote favorably on SB 238. We would be happy to respond to any questions Committee members might have.

Sincerely,

Andrew Kimbrell, Executive Director  
Center for Food Safety  
kimbrell@icta.org  
202-547-9359 x11



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

---

Testimony Presented Before the  
Senate Energy and Environment Committee and  
Water, Land, Agriculture, and Hawaiian Affairs Committee  
February 10, 2009 at 3:30pm  
by  
James R Gaines  
Vice President for Research, University of Hawaii'i

### SB 238 – RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS

The University of Hawaii stands in opposition to SB 238.

In the decades since genetically engineered (GE) crops have been introduced into the food supply, there have been no studies that indicate any greater hazards associated with the consumption of GE foods compared to conventionally or organically grown varieties. In fact, over the years as more research has been conducted, more jurisdictions in more countries have approved more crop varieties for human use and consumption. To label foods based on the process that was used to grow them would only add to consumer confusion and in the end, will provide little information that would assist consumers in making an informed decision on the healthful qualities and/or risk of using the product.

The University of Hawaii (UH) believes that if any labeling legislation is enacted, it should be focused on providing information to consumers on what is actually in the food they are choosing. For example, conventional, organic and GE farms all use a variety of chemicals to fertilize their crops and to control weeds and pests. Many of these chemicals, even some approved for organic farming, can be quite toxic. In the United States there are numerous data and research that directly tie the use of agri-chemicals to serious injuries and deaths EVERY YEAR.

Recently Dr Pam Ronald, a plant geneticist, and Raoul Adamchack, an organic farmer, from the University of California, Davis gave a series of talks across Hawaii about their book "Tomorrow's Table, Organic Farming, Genetic Engineering and the Future of Food". The following paragraph from p.98 illustrates this point:

If we carry forward with labeling a product, then organic produce treated with rotenone, a "natural" pesticide favored by some organic farmers, would need to be labeled with the following, "may contain trace amounts of rotenone. Chronic exposure can cause damage to liver or kidney" (OSHA 1998). Organic super sweet corn would require this label: "Carries a genetic mutation induced by radiation mutagenesis, resulting in the presence of a mutant protein." Organically grown papaya would need to be marked: "may contain vast amounts of papaya ringspot viral DNA and protein".

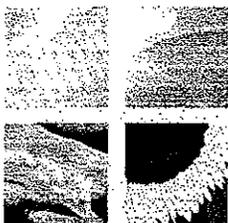
These labels are so ominous that it is not likely that many people would feel comfortable eating these organic fruits and vegetables. Still, there is no evidence that any of these food products are hazardous.

The UH strongly believes that any legislation should use an accurate and scientifically accepted definition of terms. The definitions of “genetically engineered crop” and “genetically engineered whole food” as provided in this bill are, at best, confusing. . We offer a scientifically accurate definition of genetic engineering may help clarify the term:

The development and application of scientific methods, procedures, and technologies that permit direct manipulation of genetic material in order to alter the hereditary traits of a cell, organism, or population.

UH supports providing relevant, fact-based information to consumers so that they can make informed choices on what to buy and feed to their families. However the UH cannot support this labeling bill. As written, this bill will only add to consumer confusion and assist in perpetuating misinformation that foods produced by one method or another are somehow safer than others when in fact, there is no data to support such presumptions. UH respectfully requests that this bill be deferred.

Thank you for the opportunity to testify on this bill.



# Hawaii Crop Improvement Association

*... Growing the Future of World-Class Agriculture in Hawaii*

**HCIA 2008-2009  
Board of Directors**

**President**  
Adolph Helm

**Vice President**  
Fred Perlak

**Treasurer**  
John Anderson

**Secretary**  
Alika Nopier

**Directors At Large**  
Mike Austin  
Ray Foster  
David Gilliland  
Cindy Goldstein  
Laurie Goodwin  
Kirby Kester  
Paul Koehler  
Leslie Poland  
Mattha Smith  
Mark Stoufemyer  
Jill Suga

**Past President**  
Sarah Styan

**Executive Director**  
Alicia Maluafiti

Testimony By: Alicia Maluafiti

SB 238, Relating to Labeling of Genetically Engineered Crops

Senate ENE/WTL Committees

Tuesday, Feb.10, 2009

Room 225, 3:30 pm

**Position: Strong Opposition**

**Chairs Gabbard and Hee, and Members of the Senate EDT/WTL  
Committees:**

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.

Although HCIA member companies do not sell any genetically engineered product in Hawaii, we strongly oppose this measure that would have direct impact on the Hawaii papaya industry. The story of transgenic papaya in Hawaii and how it has saved the Hawaii papaya industry is world renown. Ring spot virus decimated the papaya industry, with no eradication by biological or chemical applications possible. Due to the transgenic papaya trees, organic and conventional papayas also enjoy a reduced level of the ring spot virus and ability to produce papayas for market.

Mandatory labeling is done for limited purposes: 1) to warn consumers of ingredients that might cause allergies, such as peanut or peanut derivatives, 2) to inform consumers that ingredients are of nutritional difference than traditional counterparts. (Please refer to the USDA, Oct. 4, 2002 letter) This measure seeks mandatory labeling for consumer choice and marketing purposes. Consumers already have a choice in purchasing certified organic and "No-GMO" product labeling which command a premium price over conventional and products with genetically engineered ingredients or foods.

Please hold this bill in committee. Thank you for the opportunity to testify.



DEPARTMENT OF HEALTH & HUMAN SERVICES

---

Food and Drug Administration  
Rockville, MD 20857

October 4, 2002

Governor John A. Kitzhaber, MD  
State Capitol Building  
900 Court Street NE  
Salem, Oregon 97301-4047

Dear Governor Kitzhaber:

This letter explains why FDA objects to the pending ballot initiative to require the mandatory labeling of foods and food additives produced using genetic engineering sold in Oregon, or produced in Oregon and shipped to other states. In brief, FDA's scientific judgement is that there is no significant difference between foods produced using bioengineering, as a class, and their conventional counterparts. (By "genetic engineering," we refer to foods produced using recombinant deoxyribonucleic acid (rDNA) technology and not traditional breeding techniques; this technology is also referred to as "bioengineering" or "biotechnology.") Further, FDA's scientific evaluation of bioengineered foods continues to show that these foods, as currently marketed in the United States, are as safe as their conventional counterparts. Moreover, mandatory labeling to disclose that a product was produced through genetic engineering does not promote the public health in that it fails to provide material facts concerning the safety or nutritional aspects of food and may be misleading to consumers.

Under the Federal Food, Drug and Cosmetic Act ("the FD&C Act"), FDA is responsible for ensuring the safety of the nation's food supply, ensuring that food labeling is truthful and not misleading, and for regulating food additives. 21 U.S.C. § 321, *et. seq.* Foods and food ingredients produced using bioengineering must adhere to the same safety and labeling standards under the FD&C Act as their conventionally bred counterparts. FDA is not aware of any information or data that would suggest that any genetically engineered foods that have been allowed for human use are not as safe as conventional foods.

After numerous meetings and public comments on this issue,<sup>1</sup> FDA concluded that a safety assessment of any new food should focus on the traits and characteristics of that food, no matter which techniques (traditional breeding or genetic engineering) were used to develop the food. Food produced via bioengineering should be treated just like its conventional counterparts because, from a scientific standpoint, there is no evidence that these foods differ as a class from traditionally bred foods in any meaningful or uniform way. Nor is there evidence that, as a class, foods developed by rDNA breeding techniques present any different or greater safety concerns

---

<sup>1</sup> FDA has carefully considered the issues surrounding foods produced using bioengineering. As part of this consideration, FDA has reviewed public comments on its bioengineered food policies and has held public hearings on FDA's approach and experiences with foods produced via bioengineering. In May 1992, FDA published its "Statement of Policy: Foods Derived from New Plant Varieties" (the 1992 policy), which is available for your information at 57 Federal Register 22984 (May 29, 1992) or the FDA's web site at [www.fda.gov](http://www.fda.gov).

than foods developed via traditional breeding. FDA's scientific evaluation to date has shown that the substances added to food via bioengineering have been well-characterized proteins that are functionally very similar to other proteins that are commonly and safely consumed in the diet every day.

FDA has previously concluded that requiring mandatory labeling for bioengineered foods is not scientifically or legally warranted. Rather, the labeling for foods produced using bioengineering must comply with the law applying to the labeling for all foods. Among other things, food labeling must reveal all facts that are material in light of representation made in the labeling or in light of consequences that may result from the use of foods. 21 U.S.C. § 321(n).

For example, FDA would consider mandatory labeling where:

- the food is significantly different from its traditional counterpart, such that the common or usual name no longer adequately describes the new food – FDA has required labeling for two foods (a soy oil and a canola oil) where the fatty acid composition was changed to mimic that of food oils not associated with the modified plant;
- an issue exists for the food or a constituent of the food regarding how the food is used or consequences of its use;
- the food has significantly different nutritional properties; or
- a new food includes an allergen that consumers would not expect to be present in the food based on the food's name.

Accordingly, the proposed legislation for mandatory labeling of foods produced using bioengineering would be contrary to FDA's position that the use of bioengineering, standing alone, is not a material fact that requires disclosure in food labeling. Moreover, as is summarized above, and described in more detail in FDA's public notices cited above, mandatory labeling of bioengineered foods is contrary to the science that currently shows no significant difference between foods produced using bioengineering and their conventional counterparts.

Moreover, the proposed legislation would impermissibly interfere with manufacturers' ability to market their products on a nationwide basis. If passed, manufacturers producing products in Oregon or manufacturers selling products in Oregon produced in another state would be required to create special labeling to comply with Oregon law – labeling not required by FDA or other states. Thus, as a practical matter, the Oregon law would require different labels for different states impeding the free flow of commerce between the states.

We hope you find these views useful.

Sincerely,

Lester M. Crawford, D.V.M., Ph.D.  
Deputy Commissioner



**SB238: Relating to Labeling of Genetically Engineered Crops**

DATE: February 10, 2009

TIME: 3:30pm

PLACE: Conference Room 225

TO: 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

FROM: Lisa Gibson  
President  
Hawaii Science & Technology Council

**RE: Testimony In Opposition to SB238**

Aloha Chair, Vice Chair, and Members of the Committee,

Thank you for the opportunity to testify in opposition to SB238. Since their inception and introduction into the food supply decades ago, there have been no studies that indicate any greater hazards associated with the consumption of Genetically Engineered (GE) foods compared to conventionally or organically grown varieties. The Hawaii Science & Technology Council supports providing relevant, fact-based information to consumers so that they can make informed choices on what to buy and feed to their families. However HISciTech cannot support this labeling bill in its present form. This bill will only add to consumer confusion and assist in perpetuating misinformation that foods produced by one method or another are somehow safer than the others when in fact, there is no data to support such presumptions.

*The Hawaii Science & Technology Council (HISciTech) is a 501(c)6 industry association with a 28-member board. HISciTech serves Hawaii companies engaged in ocean sciences, agricultural biotechnology, astronomy, defense aerospace, biotech/life sciences, information & communication technology, energy, environmental technologies, and creative media.*

Sincerely,

Lisa H. Gibson  
President  
Hawaii Science & Technology Council  
(808)536-4670  
lgibson@hiscitech.org

Testimony Submitted to the

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

DATE: Tuesday, February 10, 2009  
TIME: 3:30 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 238**, REGARDING LABELING OF GENETICALLY ENGINEERED CROPS. Prohibits 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. Defines "genetically engineered crop", "modern biotechnology", and "genetically engineered whole food".

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 238.**

This bill purports to allow consumer “informed choice” with regard to GE whole foods. In my view, the bill emphasizes choice, rather than information, as it offers no valid reason for requiring a label to distinguish GE foods from those that are non-GE. If labeling is to have any value, the message must be factual and based on scientific data.

The “adverse environmental and agricultural . . . impacts accompanying genetically engineered crop contamination” claimed by the bill are, in fact, not different or greater than those accompanying 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 in seven years of testing during development or ten years of production after commercial release, involving about 200 million pounds of GE 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 viewpoint that GE crops are no riskier than their non-GE counterparts.

Regarding economic impact, losses due to “contamination” of organic crops by pollen drift from GE fields are often cited by activists opposed to GE crops, because organic growers have chosen to define “organic” to mean “non-GE” (USDA, National Organic Standards). The lack of evidence for health or safety concerns unique to GE crops makes it difficult for me to see the logic in this position. 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 itself, 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.

I also question whether the cost of implementing this labeling requirement would be “minimal” as the bill claims, especially considering that the State may be saddled with the issue of enforcement. That 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 urge legislators to **deny passage of SB 238**.

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 Agriculture Research Center

*Administration: P.O. Box 100, Kunia, HI 96759*

*Ph: 808-621-1350/Fax: 808-621-1359*

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

**SB238  
RELATING TO LABELING GENETICALLY ENGINEERED CROPS**

**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 23f Relating to Labeling Genetically Engineered Crops.**

First of all this will have a direct impact on Hawaii's papaya industry. It is the only food in Hawaii that meets the interesting definitions in this proposed legislation. All the processed foods and drinks containing or derived from genetically modified plants would continue unlabeled. The fact that papaya's are genetically engineered in Hawaii was LOUDLY AND PROUDLY proclaimed in its introduction. Those consuming papaya (the yucky virus infected fruit that was available at the time) in those days were happy to have decent tasting fruit once again and still are. There was no controversy over this until the activist arrived and created one; just like they did for irradiation, geothermal, space launch site, forestry, etc.

While under the guise of the right to know we have another veiled attempt at disrupting this technology. Statements are made, "What is wrong with labeling?" and "The polls show the public wants it!" Which needs to be followed with "What is the purpose of labeling?" and "What else does the public want to know?" or "What does the public really need to know?"

This proposed bill states other countries require labeling, so Hawaii should also. Well, since there is some history and experience out there wouldn't it be prudent to see what has occurred. The last page of this testimony contains that information and there are other scientific studies one can review from Switzerland, South Africa and the US. The concluding remark is

"We conclude that a major factor in governing the purchase of GM-products by Europeans is the decision of retailers to make them available to consumers.

Thus, to the question "Do Europeans buy GM food?", the answer is "yes – when offered the opportunity".

Lets look at the right to know argument closer: stored grains are contaminated with insects, rodent hairs and excreta. The amounts are small but detectable. Shall we label all grain products 'may contain insects, rodents or excreta'? Plants are chemical factories: coffee and cocoa have over a 1000 known and some unknown chemicals with some known toxins; other plants contain known pesticides. Shall we be requiring labeling for the ones we know are have carcinogens, mutagens or oncogens and also indicate there are more unknown?

Over 70% of the raw foods in the market place are the result of many breeding techniques including mutation breeding by radiation or carcinogenic techniques. An organized campaign at the start of any of these breeding techniques could have easily frightened consumers and given rise to demands that such foodstuffs be so labeled. These techniques have been used safely for decades, so it is a little late in the game to frighten people about them.

There is a vast array of information that a consumer has a purported right to know with more being developed daily as the genetic sequencing of crops is occurring faster and faster. Should we suggest that a CD-ROM be provided with every produce item giving its complete history? Obviously, this is absurd but no more so than the demand that products be labeled GE or GE-free while ignoring all other aspects of their history, breeding, and constituency.

What privileges the claims of those who want GM labeling? There would clearly be a right to know if there were a health or other need to know. Like other products the mechanisms already exists to ensure the labeling of those products. That is the proper role of government along with preventing fraud or misbranding.

The only reason that there is any public demand for GM labeling is a systematic campaign of misinformation that has raised a series of false fears about transgenic food but maintained a deafening silence concerning all other forms of plant breeding.

Given that the anti-GE activists have lost every serious argument on the dangers of transgenic food, we should not let them frighten us into an action based on a false assertion of a right to know.

If a segment of the population wants something special then they are at liberty to make those requests to the agricultural community who can provide their choice whatever it is, if they are willing to pay. This is a good opportunity for willing agricultural producers to link with these consumers and certainly with the communication capabilities of today those connections can be made.

**HARC urges you to oppose the passage of SB238** as unnecessary and costly to the papaya industry in severe economic times.

European Union report to review on labeling of genetically modified foods

Go

to:

<http://www.kcl.ac.uk/schools/biohealth/research/nutritional/consumerchoice/downloads.html>

## Chapter 1

### BRIEF SUMMARY

Following a decade of argument in Europe, the 2004 introduction by the EU of mandatory labelling for GM foods, the widespread importation into European countries of GM-animal feed, and the rapid development of GM agriculture and products in many parts of the world, **it was pertinent to inquire how European consumers respond when offered the opportunity of buying GM-products in the familiar environment of their normal food shops.**

In 10 EU countries, surveys were undertaken and retailers consulted to see which GM-labelled- and GM-free-labelled-products were on sale in the different types of grocery stores (see Chapter 3). We then asked **what consumers actually did** when they had the opportunity of buying GM- or GM-free products, **not just what they said they would do**. In six of those countries (the Czech Republic, Estonia, Netherlands, Poland, Spain and the UK) GM-labelled-products are currently on sale while in four (Germany, Greece Slovenia and Sweden), in which they are not, products labelled “GM-free” are widely available.

**It is clear from checking data of actual purchases against answers to questions about their preferences and intentions *from the very same purchasers*, that most shoppers do not actively avoid GM-labelled-products. Responses given by consumers when prompted by questionnaires about GM-foods are not a reliable guide to what they do when shopping in grocery stores (see Chapter 6).**

At the present time the public debate on GM issues in Europe generally is relatively subdued, although markedly more active in some countries (e.g. in the UK in the summer of 2008 and in France earlier that year). When asked about attitudes in surveys or focus group discussions, consumers in several countries raised ethical concerns, and pointed to environmental and health risks; they were **generally less aware of possible benefits than of potential hazards** (see Chapter 5).

In the participating countries, we looked at the pattern of media reporting (see Chapter 4), observed the political landscape, ran focus groups of consumers (not in the Czech Republic or Estonia) (see Chapter 5), asked retailers for information and recorded products on sale in grocery stores (see Chapter 3). **We then ran market surveys comparing individuals’ purchasing intentions with their actual behaviour** (not in Estonia or Slovenia) (see Chapter 6) and sought responses to questionnaires directed to Europeans from Poland (see Chapter 12, pages 12-2 and 12-12) and the UK (see Chapter 16, pages 16-14 and 16-31) who visit North America where GM-products are widely used. **Our findings showed that Europeans buy GM foods when they are physically present on the shelves.**

We conclude that a major factor in governing the purchase of GM-products by Europeans is the decision of retailers to make them available to consumers.

Thus, to the question “Do Europeans buy GM food?”, the answer is “yes – when offered the opportunity”.



## TESTIMONY

Senate Committee on Energy and Environment and  
Committee on Water, Land, Agriculture and Hawaiian Affairs

### RE: SB 238 RELATING TO LABELING OF GENETICALLY MODIFIED CROPS

Chair Gabbard, Chair Hee 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. HFBF is strongly opposed to SB238, requiring labeling of genetically modified farm crops in Hawaii.**

**First of all, before going into our reasons for opposition, is the issue of parity. This measure specifically requires the labeling of crops grown and sold in Hawaii. We believe the drafters of this bill did so to avoid issues with intrastate commerce. In so doing, they have targeted our local industry to undergo measures that will only increase costs ...meanwhile BT sweet corn imported from the mainland will not require labeling. We fail to understand what benefit this will bring to consumers.**

**Agriculture in Hawaii is undergoing change and we have many challenges before us as evidenced by the various measures introduced by the Hawaii Farm Bureau to improve the viability of our farmers and ranchers regardless of their choice of crops or livestock or their farming practices. Issues such as availability of water, farm and ranch viability are shared across the industry regardless of what we grow. During these difficult economic times, it is these issues that we must solve together. Will bills such as this truly add to the viability of Hawaii's farmers and ranchers? We do not believe so.**

**Some will object, that they are members of the Farm Bureau, and do not agree with our position. 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 GM technology to be just another tool in the long line of advancements in plant breeding. Opponents object saying that GM is "unnatural" with genes from species that do not normally breed crossing to result in**

**the hybrid. In the grocery store, pluots can be found which is a cross between an apricot and a plum. Under normal conditions such a cross is impossible. Yet by artificially controlling the bloom of the plant, Zaiger Genetics is able to produce an “unnatural” cross resulting in this fruit. And, organically cultivated pluots are available for sale. The same can be said for Ruby Red grapefruit which was created using irradiation. In summary, plant breeding has used various techniques over time, and GMO technology is no different.**

**HFBF 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.**



**Na Koa Ikaika o Ka Lahui Hawaii**  
c/o 400 Hualani Street, Bldg 10, Suite 194 ♦ Hilo, HI 96720  
(808) 961-2888 phone ♦ (808) 935-8854 fax ♦ gibson@ilhawaii.net



TESTIMONY RE: SB 238 & SB 237 & SB 709

DATE: Tuesday Feb 10<sup>th</sup>, 2009

TIME: 3:30pm

PLACE: CR 225

Testimony on SB 238 Relating to Labeling of Genetically Engineered Crops [In Support]

I support this measure because I am a consumer who wants to exercise my right to choose the best food I can for my family and for myself. There is a growing debate on the safety of GMO foods, and it is well documented that people with food allergies may be severely injured by GMO. Please support and pass this measure.

Testimony on SB 709 Relating to GMO TARO [Support with amendments]

I support this measure but ask that the language and form be amended to reflect the language in HB 1663. These amendments would strengthen the measure by protecting all varieties of Kalo and addressing economic and health concerns that are not adequately Protected at present. Please amend and support these measures.

Testimony ON SB 237 Re: GMO FISH: [Support]

I strongly support this measure as it will protect not only our right to choose the food we eat and feed our families but it will protect our fishing industry. The introduction of live GMO fish would contaminate our own clean fishing products and injure the future fishing injury by contaminating our fish. We know that consumers in Japan have already rejected Hawaii Papaya because of discovered GMO contamination. Will Asian consumers be rejecting our fish next? Please Support this measure

Mililani B. Trask Big Island



# Waikīkī Hawaiian Civic Club

President, Malia Nobrega  
[malianob@gmail.com](mailto:malianob@gmail.com)

E HUKI LIKE!

## TESTIMONY IN STRONG SUPPORT OF SB 238, RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS

Hearing Date: February 10, 2009

Time: 3:30pm

Conf. Room: 225

Committee: ENE & WTL

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

Mahalo nui for the opportunity to provide testimony in strong support of SB 238 relating to labeling of genetically engineered crops. This bill 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.

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 strongly supports this bill because the people of Hawaii need to be informed about the origins of our food so that we can make informed choices and be informed consumers. It scares us to think that many of us could be eating food that could be genetically modified and we don't even know it.

### 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.

#### **Waikiki 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 Waikiki 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



# LIFE OF THE LAND

76 North King Street, Suite 203

Honolulu, Hawai'i 96817

Phone: 533-3454; E: [henry.lifeoftheland@gmail.com](mailto:henry.lifeoftheland@gmail.com)

## 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](http://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



# Sierra Club Hawai'i Chapter

PO Box 2577, Honolulu, HI 96803  
808.537.9019 hawaii.chapter@sierraclub.org

## SENATE COMMITTEE ON ENERGY AND ENVIRONMENT SENATE COMMITTEE ON WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS

February 10, 2009, 3:30 P.M.

*(Testimony is 1 page long)*

### TESTIMONY IN SUPPORT OF SB 238

Chair Gabbard, Chair Hee, and members of the Committees:

The Sierra Club, Hawaii Chapter, with 5500 dues paying members statewide, supports SB 238, relating to the labeling of genetically engineered crops but encourages this body to take greater steps to control the use and spread of GMO products.

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.

The public is entitled to know more about these potential risks. The public is entitled to be able to make informed decisions about what products they purchase and eat. This may also impact the production of GMO products -- if no one purchases them, will there be a demand to continue growing them? An informed public is able to make informed decisions. To adequately protect the environment and the public health, this bill should be passed.

Thank you for the opportunity to testify.

**HPACH**  
919 4th Street  
Pearl City, Hawaii 96782

February 10, 2009

Senator Mike Gabbard, Chair  
Senator J. Kalani English, Vice Chair  
And Committee Members on Energy and Environment

Senator Clayton Hee, Chair  
Senator Jill N. Tokuda, Vice Char  
And Committee Members on Water, Land, Agriculture and Hawaiian Affairs

House of Representatives, 2009 Legislature Session  
State of Hawaii

Subject: SB 238, Relating To Labeling Of Genetically Engineered Crops,  
SUPPORT

ALOHA Kakou,

My name is Richard Pomaikaiokalani Kinney. On January 17, 1903 after reading Public Law 1-3-150 I renounced my citizenship to the United States. I come here today as a Hawaiian Nationalist of the Hawaiian Kingdom. I strongly support the restoration of the Hawaiian Kingdom government that was invaded and occupied thru an Act of War on the January 16, 1893 with the involvement of the diplomatic and military forces of the United States.

As Sovereign of the Hawaiian Political Action Council of Hawaii, I strongly SUPPORT the passage of SB 238.

Genetically Engineered Crops should be Out Law in Hawaii. No Genetically Engineered Crops should be grown or sold in Hawaii.

Presently there are many problems with the quality of foods here in Hawaii and throughout the world., The people of Hawaii don't need another added problem to their food supplies. Especially an added problem that may have an endless effect to the health effects on the Indigenous Hawaiian people.

All Hawaii Grown Crops are among the best in the world.

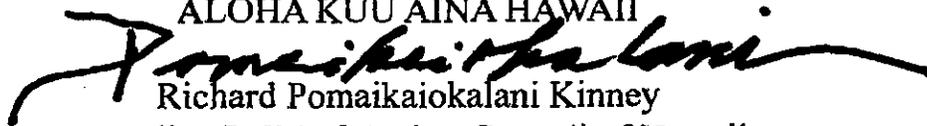
**HPACH**  
919 4th Street  
Pearl City, Hawaii 96782

Page 2  
February 10, 2009  
SB 238

FREE HAWAII from Genetically Engineered Crops is the right step forward and is Pono.

Mahalo Nui for allowing me to give testimony on this very important Bill.

Attachment: Renouncement Documents

ALOHA KUU AINA HAWAII  
  
Richard Pomaikaiokalani Kinney  
Hawaiian Political Action Council of Hawaii  
87-168 Maaloa Street  
Waianae, Hawaii, 96792  
Email: [HIAWAII@aol.com](mailto:HIAWAII@aol.com)

---

**From:** Tane . [tane\_1@msn.com]  
**Sent:** Monday, February 09, 2009 5:31 AM  
**To:** ENETestimony  
**Subject:** RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS

# 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

COMMITTEE ON WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS

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

CORRECTED NOTICE OF HEARING

**NOTE:** The prior notice contained an error in the location of the hearing. The correct location is listed below:

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

## A G E N D A

SB238                      RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS.                      ENE/WTL, CPN

Testimony                      Prohibits 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. Defines "genetically engineered crop", "modern biotechnology", and "genetically engineered whole food".

Status

SB 237                      RELATING TO GENETICALLY ENGINEERED FISH.                      ENE/WTL, CPN  
Testimony                      Prohibits the sale of genetically engineered fish or genetically engineered fish products unless for consumption in the State of Hawaii and appropriately labeled as genetically engineered fish or genetically engineered fish products.

Status

Dear Senators:

I support both of these bills as it makes for good common sense. Genetic engineered products have had a bad reputation the world over, along with some horror stories; I have done some extensive research on GMO companies and feel this should be looked into along with the ramifications and indiscreet usage of this method especially in Hawai'i. They always say Hawaii is expendable and won't affect the contiguous U.S.A. should anything go wrong. For us, this will be devastating; for them, they can just blow us off without and good conscience because this is our home and not theirs that will suffer the consequence.

- *"I support protecting all natural taro and banning GMO-taro."*

- *"I support the amendments that the taro farmers are proposing to SB709 to protect all varieties of taro and to protect the health of consumers & our local taro industry from GMO-taro, by changing the bill language to reflect that of HB1663." - "Please support taro farming in Hawaii by showing up to vote in support at the committee hearing on Tuesday at 3:30 and pass this bill with those appropriate amendments."*

### **De-mystifying what science is.**

**Pure science** is science based on self-evident truths as mathematics, logic, etc. Our Hawaiian society is based on these facts as well.

I'm indignant that the UH and GMO companies and some members of the government think they have a monopoly on science; what is valid and what isn't valid. Such arrogance and narrow-mindedness! We have our own science as well; our kumulipo exemplifies our knowledge.

Science is a systematic knowledge of natural or physical phenomena; truth ascertained by observation, experiment, and induction; ordered arrangement of facts known under classes or heads; **theoretical knowledge as distinguished from practical as utilized at UH and other western institutions.**

So what you are saying is western science is superior to Polynesian Pacific science and we of the Pacific region are mentally incapable of constructing our own science? Remember, the Western Civilization did not achieve the science they have today on their own; they got it from the mainstream civilization of the Middle East and Asia. They borrowed it from other civilizations and used it to begin their development in the 12th century to become the mainstream civilization of today. Their strength was industrializing, using what they learned from other civilizations.

Now they want to claim sole ownership of the knowledges and profit on them for self-gratification and pecuniary reasons. They want us to accept, comply with their self-aggrandizement and sole enrichment no matter the consequence. We say NO! We do not consent to their seditious and incompetent methods which they cannot guarantee is safe. For one group of Corporations to claim ownership of what is God-given to every free person in this world is criminal and we will not consent to this covetness.

Past dereliction of previous legislators have beset a precedent to covertly abet with these corporations in lieu of safeguarding our community. The burden now lies with you to protect the welfare of your constituents who have entrusted you to uphold your oath of office.

Mahalo,

Tane  
AKA: David M.K. Inciong, II  
1107 Acacia Road #113  
Pearl City, HI 96782-2581

(808) 456-5772

tane\_1@msn.com

---

Windows Live™: E-mail. Chat. Share. Get more ways to connect. [Check it out.](#)

---

**From:** Melissa Yee [drmlsukyo@yahoo.com]  
**Sent:** Monday, February 09, 2009 9:45 AM  
**To:** ENETestimony  
**Subject:** Testimony in support of SB238 Relating to Labeling of Genetically Engineered Crops

Hearing before Committee on Energy and Environment, Chairperson Senator Mike Gabbard and Committee on Water, Land, Agriculture and Hawaiian Affairs, Senator Clayton Hee Tuesday, February 10, 2009 3:30 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.

Now come the biotech industries to save Hawaii's faltering economy and buy up the fallow fields, and the result is the 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 the least we can do to save our food.

Therefore, I strongly support this bill to label genetically engineered foods, as has been done in countries in Europe and Japan, which are opposed to the import of GMO foods from the United States. Any wise consumer who sees the label "non-GMO" and can afford the price difference will choose the GMO free food, which is why the pro GMO people so vehemently oppose such labeling. Unfortunately the "masses" will suffer if nothing is done at this early stage. Please take a strong stand to support labeling Hawaii food products which have not been contaminated by man-made intervention. Please pass this bill.

Respectfully submitted,  
Dr. Melissa Yee

**TESTIMONY ON SB 238**

**SENATE COMMITTEE  
ON  
WATER, LAND, AGRICULTURE AND HAWAIIAN AFFAIRS**

**CHAIRPERSON:** Senator Clayton Hee  
**BILL NO:** SB 238 Labeling Biotech Foods  
**TITLE:** Relating to labeling Genetically Engineered Foods

**HEARING DATE & TIME:** Tuesday, February 10, 2009 3:30 PM

**HEARING LOCATION:** Conference Room 225

**TO: Chairperson Senator Clayton Hee 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.

The U.S. Food and Drug Administration (FDA) currently has set policy guidelines about food product labeling in place. All labels must show nutritional information such as protein, carbohydrate and fat content and known strong allergenic content. To date, FDA is not aware of information that would distinguish genetically engineered foods as a class from foods developed through other methods of plant breeding and, thus, require such foods to be specially labeled to disclose the method of development.

Labeling a food as genetically engineered would mean that we are labeling the food based on the process used to make it and not the product itself or any verifiable safety issues.

Modern plant breeding use techniques to manipulate genomes, such as mutation, irradiation, chemical or radiation-induced mutagenesis, somaclonal variation, or cell culture. Do we label these methods too?

At the present time about 70 per cent of our food in the supermarket contain at least one ingredient that is a product of biotechnology. The exception is organic food. Organic food does not use food biotechnology products. This means that everyone has the choice to avoid GM food. Simply buy organic food.

The added cost of such labeling would have all of Hawaii's non-organic consumers, who cannot afford organic food, facing increased costs. In addition, the stores would require addition shelf space to separate biotech foods from non-biotech foods. Added consumer cost increases at this high time of unemployment.

Maybe a survey of who wants to pay for additional meaningless labeling should be done.

I urge the committee to not pass this bill that will surely increase consumer costs.

Don Gerbig  
6 Tulip Place  
Lahaina, HI 96761-8322

---

**From:** nancy redfeather [nredfeather@kohalacenter.org]  
**Sent:** Sunday, February 08, 2009 9:20 PM  
**To:** ENETestimony  
**Subject:** Testimony for SB 238-Strong Support and Testimony for SB 237 - Strong Support

From:

Nancy Redfeather  
Kawanui Farm  
P.O. Box 906  
Kealakekua, Hawai'i 96750

Aloha Chair Gabbard, Chair Hee, and Vice Chair's Tokuda and English,

As relates to both bills SB 238 and SB 237, the time has come for the public to knowledgeably decide what they choose to eat. Labeling of genetically engineered whole foods and fish in Hawai'i puts the responsibility into the hands of the consumers where it belongs.

People have a right to know what they are eating. Let the marketplace decide. This is not an issue that should be decided by the companies who produce these foods.

Once many years ago, I was talking to Governor LIngle about the farmer's concerns about genetically engineered agricultural crops.

She said, " The marketplace can decide this issue, this is not for the legislature to mandate." I said, " That would be fabulous except that foods containing genetically engineered ingredients are not labeled." She said with surprise, "They're not?"

Mahalo for your support of this important public right to know issue.

Aloha,

Nancy Redfeather  
Kawanui Farm  
Honalo, Hawai'i

---

**From:** Nancy Redfeather [nancyredfeather@yahoo.com]  
**Sent:** Sunday, February 08, 2009 9:46 PM  
**To:** ENETestimony  
**Subject:** New scientific paper on the health risks of GM foods-SB 238 and SB 237

New scientific paper on

> the health risks of GM foods  
> Health Risks of Genetically Modified Foods By Artemis Dona [1] and  
> Ioannis S. Arvanitoyannis [2] [1. Department of Forensic Medicine and  
> Toxicology, University of Athens Medical School; 2. University of  
> Thessaly, School of Agricultural Sciences, Dept. of Agriculture  
> Ichthyology and Aquatic Environment.] Critical Reviews in Food Science  
> and Nutrition, 49:164,175 (2009)2 EDITED

>  
> Abstract:As genetically modified  
> (GM) foods are starting to intrude in our diet concerns have been  
> expressed regarding GM food safety. These concerns as well as the  
> limitations of the procedures followed in the evaluation of their  
> safety are presented. Animal toxicity studies with certain GM foods  
> have shown that they may toxically affect several organs and systems.  
> The review of these studies should not be conducted separately for  
> each GM food, but according to the effects exerted on certain organs  
> it may help us create a better picture of the possible health effects  
> on human beings. The results of most studies with GM foods indicate  
> that they may cause some common toxic effects such as hepatic,  
> pancreatic, renal, or reproductive effects and may alter the  
> hematological, biochemical, and immunologic parameters. However, many  
> years of research with animals and clinical trials are required for  
> this assessment. The use of recombinant GH [growth hormone] or its  
> expression in animals should be re-examined since it has been shown  
> that it increases IGF-1 which may promote cancer.

>  
>  
> CONCLUSIONSIt should be emphasized  
> that since these GM foods are going to be consumed by every human  
> being they should be tested even more thoroughly than drugs and more  
> experiments are required in order to study the possible toxicity and  
> make any conclusions. Tests to determine how a GM food affects  
> mutagenesis and carcinogenesis should be conducted as well. Finally,  
> postmarketing surveillance should be part of the overall safety  
> strategy for allergies, especially of high-risk groups such as infants  
> and individuals in "atopic"  
> families. Evaluation of protein allergenicity in man should also  
> include studies in individuals not only with a history of allergy but  
> with immunodeficiency as well. The use of recombinant GH [growth  
> hormone] in animals, such as cows or the expression of GH in animals  
> such as salmon should be re-examined since it may promote cancer. The  
> results of most of the rather few studies conducted with GM foods  
> indicate that they may cause hepatic, pancreatic, renal, and  
> reproductive effects and may alter hematological, biochemical, and  
> immunologic parameters the significance of which remains unknown. The  
> above results indicate that many GM food have some common toxic  
> effects. Therefore, further studies should be conducted in order to  
> elucidate the mechanism dominating this action. Small amounts of

> ingested DNA may not be broken down under digestive processes and  
> there is a possibility that this DNA may either enter the bloodstream  
> or be excreted, especially in individuals with abnormal digestion as a  
> result of chronic gastrointestinal disease or with immunodeficiency.  
> Although intensive  
> scientific effort is currently in progress to thoroughly understand  
> and forecast possible consequences on humans, animals, and the  
> environment, it is anticipated that many years of careful, independent  
> research with animals and clinical trials will be needed in order to  
> accomplish this assessment.

>  
> -----Inline Attachment Follows-----

>  
>  
>

---

> Geactivists mailing list  
> Geactivists@geaction.org  
> [http://geaction.org/mailman/listinfo/geactivists\\_geaction.org](http://geaction.org/mailman/listinfo/geactivists_geaction.org)

>

Caren Diamond  
P. O. Box 536  
Hanalei, Hi. 96714

February 9, 2009

**Testimony in Support SB 238**

ENE-WTL

Room: 225  
2/10/2009  
Hearing Date 3:30:00 PM

Aloha Committee Members,

Please support our right to know what we are eating in Hawaii.

Many folks skip a food product altogether rather than eat Genetically Modified Organisms. But more than a personal choice, it can be a health necessity.

Just as fat content or sugar content is labeled, so that those in need of limiting their intake of those products can do so, Genetically Modified Organism. should be identified. It doesn't mean those things are bad, but it does allow people to have the opportunity to choose what they are eating.

As an example, if peanut products are genetically inserted into a Genetically Modified vegetable, it is a serious health issue for those allergic to peanuts, the same can be said for soy .

Please support this overdue legislation.

Mahalo Nui, Caren Diamond

---

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 09, 2009 2:23 PM  
**To:** ENETestimony  
**Cc:** claudjrose@hotmail.com  
**Subject:** Testimony for SB238 on 2/10/2009 3:30:00 PM

Testimony for ENE-WTL 2/10/2009 3:30:00 PM SB238

Conference room: 225  
Testifier position: support  
Testifier will be present: No  
Submitted by: Claudia Rosenbaum  
Organization: Individual  
Address:  
Phone:  
E-mail: [claudjrose@hotmail.com](mailto:claudjrose@hotmail.com)  
Submitted on: 2/9/2009

Comments:

---

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 09, 2009 3:14 PM  
**To:** ENETestimony  
**Cc:** raypublichealth@gmail.com  
**Subject:** Testimony for SB238 on 2/10/2009 3:30:00 PM

Testimony for ENE-WTL 2/10/2009 3:30:00 PM SB238

Conference room: 225  
Testifier position: support  
Testifier will be present: No  
Submitted by: Rachel Heckscher  
Organization: Individual  
Address: 149 Uhiwai Place Wailuku, HI 96793  
Phone: 617-821-3855  
E-mail: [raypublichealth@gmail.com](mailto:raypublichealth@gmail.com)  
Submitted on: 2/9/2009

**Comments:**

I strongly support the requirement for all genetically engineered foods, plants, and seeds sold in Hawaii to be clearly labelled as such.

**From:** marygonmaui@aol.com  
**Sent:** Monday, February 09, 2009 1:43 PM  
**To:** ENETestimony  
**Subject:** GMO

To who it may concern

Please let us have a choice in what we eat demand labels of GMO products..

Thank you  
Mary Goodman

SB238

---

**A Good Credit Score is 700 or Above. See yours in just 2 easy steps!**

---

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 09, 2009 4:15 PM  
**To:** ENETestimony  
**Cc:** bcbonse@yahoo.com  
**Subject:** Testimony for SB238 on 2/10/2009 3:30:00 PM

Testimony for ENE-WTL 2/10/2009 3:30:00 PM SB238

Conference room: 225  
Testifier position: support  
Testifier will be present: No  
Submitted by: Bonnie Bonse  
Organization: Individual  
Address:  
Phone:  
E-mail: [bcbonse@yahoo.com](mailto:bcbonse@yahoo.com)  
Submitted on: 2/9/2009

Comments:

Thank you for this opportunity to give testimony in support of labeling of genetically engineered fish, should they be sold in Hawai'i.

I support this bill because I do not want to eat, or feed my family, fish - or any food - that have not grown as nature intended.

The few health studies that have been done on GMOs are not positive. Here is an excerpt from a recent study: "The results of most studies with GM foods indicate that they may cause some common toxic effects such as hepatic, pancreatic, renal, or reproductive effects and may alter the hematological, biochemical, and immunologic parameters." (Critical Reviews in Food Science and Nutrition, 49:164,175 (2009)2)

This is a risk I do not want to take and nobody should have to take unknowingly. To not label all foods that have been genetically tampered with is criminal - an infringement on our basic human rights.

---

**From:** Dawn Bicoy [dawnmariebicoy@yahoo.com]  
**Sent:** Monday, February 09, 2009 3:52 PM  
**To:** ENETestimony  
**Subject:** Oppose SB238 - RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS

RE: Hearing Date: Tuesday, February 10, 2009  
Time: 3:30pm  
Place: Conference Room 225, State Capitol, 415 Beretania Street

I am a resident of the island of Molokai where many genetically engineered crops are grown, and I oppose SB238.

I do not support labeling of genetically engineered foods.

Over a billion acres of genetically engineered crops have been planted over the last 12 years. Not one safety issue to humans or the environment has been documented. Approximately 300,000 humans die every year from pesticide poisoning. Maybe we should be directing our energies towards issues that have proven scientific data.

Labeling a product "GMO Free" doesn't give the consumer any *meaningful* information. If labeling is a concern, factual information as to how the crop was grown; if the product is safe i.e., pesticides used; or nutritional content should be stated. For example, if a certain pesticide that is known to cause human liver damage (which is currently approved and used in organic farming) was used - this would provide factual information that means something to the consumer. I used this example to balance the argument of product labeling, that it should be industry inclusive.

I urgently ask that you seek more specifics about genetic engineering before you reject this technology or put unnecessary obstacles in front of it. The seed industry is making large economic strides in Hawaii's economy, when other staple industries are not. Many Hawaii residents throughout the island chain are employed at wages better than minimum wage, and are provided exemplary benefits and working conditions. And it is a testimony that the seed industry's employees are treated well and the labor force is substantially growing, when the workers themselves are not seeking to unionize but the unions are seeking to unionize their workers. This is a forward thinking industry and a stable economic engine for Hawaii and its people. It is also a pillar during this time of State budget cuts and reduced tax revenue.

This bill is unbalanced. If the public believes labeling should be required, ALL types of farming should adhere equally to meaningful labeling information. Sadly as it stands, this bill is purely meant to harass one side of the agricultural industry.

Respectfully submitted,

Matsuda-Fukuyama Farms, Inc.  
Written Testimony by:  
Clyde Fukuyama and Mel Matsuda

SB 238, RELATING TO LABELING OF GENETICALLY ENGINEERED CROPS  
Senate ENE/WTL Committee Hearing  
Tuesday, Feb. 10, 2009 – 3:30 pm  
Room 225

Position: Strongly Oppose

Chairs Gabbard and Hee, and Members of the Senate ENE/WTL Committees:

My name is Clyde Fukuyama. My partner Melvin Matsuda and I grow about 40 acres of transgenic papaya, the Laie Gold and Rainbow papaya on Oahu.

We strongly oppose this bill that would target the transgenic papaya industry, which has saved the Hawaii papaya industry to include organic and conventional papaya growers. Transgenic papayas have been reviewed and approved by the USDA and FDA for commercial markets. Our papayas are safe to eat, nutritious and delicious!

FDA's labeling policy for biotech foods requires foods to be labeled according to their characteristics, not their method of production. This means that special labeling of biotechnology foods is not necessary. FDA requires labeling when food products, including biotech, are no longer substantially equivalent to traditional counterparts. These include changes in composition, nutritional value or safety. The FDA's food labeling policy is supported by the American Medical Association, American Council on Science and Health, Council for Agriculture Science and Technology, the International Food Information Council, and Institute of Food Technologists.

Our transgenic papayas do not require labeling. We believe and support FDA's policy of allowing food manufacturers to make voluntary claims about whether their products contain biotech ingredients with statements that are clear and truthful. Such a voluntary labeling system allows niche markets to develop that cater to consumers interested in products grown in a certain way, such as organic foods. The certified organic labels provide choices for consumers who wish to avoid biotech products.

We urge you to reconsider this bill that is unnecessary and will have negative economic impact on our business as well as other papaya growers in Hawaii.

Thank you for the opportunity to present testimony.

Respectfully submitted,

Clyde Fukuyama  
Melvin Matsuda

---

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 09, 2009 3:33 PM  
**To:** ENETestimony  
**Cc:** judygrodan@gmail.com  
**Subject:** Testimony for SB238 on 2/10/2009 3:30:00 PM

Testimony for ENE-WTL 2/10/2009 3:30:00 PM SB238

Conference room: 225  
Testifier position: support  
Testifier will be present: No  
Submitted by: Judy  
Organization: Individual  
Address: Kehala Dr. Kihei  
Phone: 280-9349  
E-mail: [judygrodan@gmail.com](mailto:judygrodan@gmail.com)  
Submitted on: 2/9/2009

**Comments:**

I strongly agree with the demands to insure that the public knows that we are or are not buying gmo products. I can't imagine that it would be considered legitmate not to be labeling the contents of the package as has been done for many years. Yes, label and mark conspicuously gmo products. They do not contain real food value and I have a right to know what I am buying and who I am supporting in my grocery shopping, for myself and my family.

---

**From:** dot [dotaloha@hotmail.com]  
**Sent:** Monday, February 09, 2009 4:55 PM  
**To:** ENETestimony  
**Cc:** dotaloha@yahoo.com; dotaloha@hotmail.com  
**Subject:** genetic altered food

Please consider making every attempt to label, not allow or support the production of this gmo food. It contaminated papayas on Maui, from organic to alter. I have read how this food creates holes in stomachs, also it may be adding to the obesity of people. So label restrict not to be allowed if at all possible would be my testimony  
Dot Buck Pukalani, Maui  
572 4108

Committee on Energy and the Environment  
Chairman Sen. Mike Gabbard  
Vice-Chair Sen. Kalani English

Committee on Water, Land, Agriculture and Hawaiian Affairs  
Chairman Sen. Clayton Hee  
Vice-Chair Sen. Jill Tokuda

Testimony in strong support of SB 238 & SB237  
February 10, 2009, Room 225

Submitted by:  
Una Greenaway - For Hawaii Farmers' Union

Aloha Chairs Gabbard and Hee and Vice Chairs English and Tokuda:

Good to see you again! I am here to speak on the two labeling bills.

First SB238 on the labeling of GE, or GMO whole food products in the state. For many years now, the consumers of the state of Hawaii have been consuming GMO crops without their prior knowledge. Papayas are not labeled, so it is very difficult to know what one is consuming, unless the papaya is certified organic. The papaya is known to have been exempted for its allergens, and clearly may cause problems for folks with allergies, and food allergies. For the rest of the population, they just may want to know how to avoid consuming a papaya with G.E. antibiotic resistance marker genes, that are resistant to gentamycin, neomycin, and tetracycline. Dr. Sabray Shehata, from CTAHR, published a paper in 2007, which shows that the citizens of Hawaii want labeling.

As to other whole food crops in our state, the only other crop that I could see being affected by this law, at this time, would be genetically engineered Bt sweet corn, a corn with the pesticide inserted into the plant. The largest sweet corn grower in the state has in the past used the Bt seeds when growing their corn. There has been much speculation over whether the corn they are currently growing and selling is Bt or not. They claim that it is not, but someone that I know used strip testing on many samples, and it came up positive for transgenes or gmos. I know for myself, the Bt corn has very strong allergens, known as the Cry1AB or Cry1AC proteins. Below, I have attached a small portion of a paper, *Safety Testing and Regulation of Genetically Engineered Foods*, written by two scientists William Freese, then with Friends of the Earth, now with Center For Food Safety, and David Schubert of the Salk Institute. There are real food allergy concerns with these crops. The aforementioned article illustrates the need for labeling, as the EPA ignored the conclusions of expert advisors.

“In an assessment of *Bt* crops, expert advisors to the EPA who reviewed the Bernstein study and one of Vazquez *et al.*'s four studies concluded that: ‘These two studies suggest that *Bt* proteins could act as antigenic and allergenic sources’ (SAP *Bt*, 2000, p. 76). Different approaches were called for to further characterize the allergenic risk of *Bt* proteins: ‘Only surveillance and clinical

assessment of exposed individuals will confirm the allergenicity of *Bt* products...’ (SAP *Bt*, 2000, p.76). Finally, the EPA’s experts noted that testing for potential reactions to Cry proteins in *Bt* spray and *Bt* crops could be undertaken now: ‘The importance of this [Bernstein’s] report is that reagents are available that could be used for reliable skin testing and serological evaluation of *Bt* protein exposed individuals.’ Unfortunately, in 2001 the EPA re-registered *Bt* corn for 7 years without making use of these reagents (EPA BRAD, 2001d, p. 12). The Agency has also discounted other evidence of the potential allergenicity of *Bt* proteins” (Freese & Schubert, 2004).

The citizens of our state should have the right to know what they are consuming. I represent the Hawaii Farmers’ Union, the newly formed Hawaii chapter of the National Farmers’ Union, an organization that has been around since 1902. NFU overwhelmingly supports the small family farmer over the large corporate agribusiness interests, across the USA. The NFU’s policy on Genetically Modified Organisms and Biotechnology requires genetically engineered foods to be labeled for consumers.

Regarding SB237 – There are currently genetically engineered fish that are awaiting USDA approval. The consumers of Hawaii once again must have the right to know what they are buying and eating. Please act responsibly, and give the citizens this basic right to know what they are consuming.

Mahalo,  
Una Greenaway

**From:** Steve Slater [steve@vcasa.net]  
**Sent:** Monday, February 09, 2009 4:29 PM  
**To:** ENETestimony  
**Subject:** Testimony SB 238 & 237

I would like to point out that the huge strides in Biology during the past 2 years, warn us to be very cautious with regard to possible future effect of GMO foods. Last Spring I took an intermediate Biology Class online from the University of California. The most impressive research touched upon in this class, was the discovery that far less than 3% of the microbes in a sample of soil were 'Known'. With the ease of current DNA analysis, Biologists began to understand that only the microbes which could grow on agar had been discovered.

This revelation, of the plethora of unknown microbes in soil, will also surely relate to unknown microbes in our bodies and in GMO foods.

Microbial colonies play massive roles in our digestion, immune systems, etc. The combination of man made manipulation of genetics, beyond what can be done through selective breeding, in conjunction with the relationships to yet unknown microbes, makes this a very dangerous time to allow foods to be unlabeled.

We are just beginning to relate to the complicated interactions of cell chemistry and must err on the side of caution.

Steve Slater  
P.O. Box 790913  
Paia, HI 96779

---

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 10, 2009 7:25 AM  
**To:** ENETestimony  
**Cc:** hokuokekai50@msn.com  
**Subject:** Testimony for SB238 on 2/10/2009 3:30:00 PM

Testimony for ENE-WTL 2/10/2009 3:30:00 PM SB238

Conference room: 225  
Testifier position: support  
Testifier will be present: No  
Submitted by: Mary Lacques  
Organization: Individual  
Address:  
Phone:  
E-mail: [hokuokekai50@msn.com](mailto:hokuokekai50@msn.com)  
Submitted on: 2/10/2009

Comments:

Dear Senators,

I am testifying in strong support of SB238 because it reflects the will of the people of Hawai'i. When the public at large, your constituents, have been asked whether they support a labeling bill on transgenic food crops, the answer has been an overwhelming and resounding "YES".

One of my concerns regarding genetic engineering has been the non-target effects of genetic manipulation and the lack of data supporting the safety of consuming this radically altered "food".

Please take a few minutes to read the article by Craig Holdrege, "Nontarget Effects of Genetic Manipulation," a project of the Nature Institute. It provides clear and concise information on this subject.

Mahalo for the opportunity to testify,

Mary Lacques

Testimony transmitted by email 10 Feb 2009 from:

Penny Levin  
224 Ainahou Place  
Wailuku, Maui 96793

**TO:** Committee on Energy and the Environment and Committee on Water, Land,  
Agriculture and Hawaiian Affairs, Rm225, February 10<sup>th</sup>, 3:30pm

**RE:** *Testimony for SB238 Relating to Labeling of Genetically Engineered Crops and  
SB237 Relating to Genetically Engineered Fish*

Aloha Honorable Committee members;

Regarding *SB238 Relating to Labeling of Genetically Engineered Crops and SB237 Relating to Genetically Engineered Fish*, I strongly support the proposed legislation to protect consumers' right to know about the food they eat in the State of Hawai'i.

Both these bills address important concerns for consumers in Hawai'i - the right to know what is in their food and the right choose food they deem as healthy, organic, and safe.

For some consumers, they may not care how their food has been altered. For others, including those who battle illnesses such as cancer or wasting diseases, whose children deal with autism, ASD or other diseases, or just those who consciously make an effort to maintain a healthy lifestyle, the importance of whole, macrobiotic, pure foods can not be emphasized enough.

In the case of medicines, full disclosure on the potential risks and side effects are required by law as part of packaging. In the case of genetically engineered plant and animal food crops, the impacts and side effects remain unknown and have yet to be fully studied.

Too many questions remain regarding the safety of genetically engineered foods to place so many people unknowingly at risk.

Additionally, the threat of contamination, whether through mixing into schools or fields or through uncontrolled hybridization of wild populations of fish or adjacent, similar plant crops or wild plant relatives by genetically engineered counterparts is very real and has been well documented in the last decade. Farmers deserve the right to protect the integrity of their crop and the quality of their products and markets. Hawaii's fragile island ecology requires our vigilance in this arena.

I ask the members of the ENE and WLT Committees to support SB238 and SB237.

Respectfully,

Penny Levin  
Wailuku, Maui