

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



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

PHYLLIS SHIMABUKURO-GEISER  
Chairperson, Board of Agriculture

MORRIS M. ATTA  
Deputy to the Chairperson

TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER  
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEE ON FINANCE

THURSDAY, FEBRUARY 20, 2020  
12:00 P.M.  
CONFERENCE ROOM 308

HOUSE BILL NO. 2167, H.D. 1  
RELATING TO SUSTAINABLE AGRICULTURE

Chairperson Luke and Members of the Committee:

Thank you for the opportunity to testify on House Bill No. 2167, H.D. 1 to establish and implement a three-year crop reimbursement pilot program to reimburse farming operations in the State for the costs of acquiring cover crop seeds or green manure.

The Department supports fully the intent of this measure as long it does not adversely impact priorities in our Executive Supplemental budget.

We agree with this measure that cover crops and green manure can provide many benefits to agricultural operations such as increasing crop yields and reducing high input costs including fertilizer, pesticides, and herbicides.

Cover crops have been found to mimic soil-building and microbial-friendly conditions in diverse soils, conserve moisture, prevent erosion, runoff, and reduce the crop consumption of irrigation water.

The Department has one reservation on this bill. On page 3, section (e) lines 9 through 11, the measure states the department shall aggregate the total reimbursement applications pursuant to this section and divide and distribute the available moneys on a first come, first served basis. While this procedure is efficient, we suggest that applicants be screened and rated on the quality of their cover crop and green manure practices. This alternate procedure is more prudent as recent research has shown that cover crops and green manure in some Hawaii locations may not have the same



benefits in different locations due to crop, climate, weather and soil conditions (Pant, et al, 2014).

We suggest amending the language on section (e) lines 9 through 11 to the following: "The department shall convene a review panel comprising of knowledgeable representatives from industry organizations, college of tropical agriculture & human resources, and department of agriculture to screen and rate applicants on the quality and appropriate use of their cover crops and green manure practices. The department shall then aggregate the total reimbursement applications pursuant to this section and distribute the available moneys on a ranking scale from highest to lowest as determined by the review panel;"

Likewise, the collection of data from applicant's farm production for cover crops and green manure before and after receiving any cover crops reimbursement could provide valuable information to evaluate the contribution of the intervention and to the overall success of the pilot program.

Thank you for the opportunity to testify on this bill.



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail [info@hfbf.org](mailto:info@hfbf.org); [www.hfbf.org](http://www.hfbf.org)

February 20, 2020

HEARING BEFORE THE  
HOUSE COMMITTEE ON FINANCE

**TESTIMONY ON HB 2167, HD1**  
RELATING TO SUSTAINABLE AGRICULTURE

Room 308  
12:00 PM

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

**The Hawaii Farm Bureau supports HB 2167, HD1**, which establishes and appropriates funds for a cover crop reimbursement pilot program under the Department of Agriculture to provide up to 100% cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure.

HFB agrees that the use of cover crops and green manure increases agricultural productivity and is a beneficial management practice. We do have some concern however, about how this program may be prioritized among the many essential and urgent agricultural needs competing for the same pot of money.

Thank you for your support of Hawaii agriculture.



# SIERRA CLUB OF HAWAI'I

## HOUSE COMMITTEE ON FINANCE

February 20, 2020 12:00 PM Room 308

In **SUPPORT** of **HB2167 HD1**: Relating to Sustainable Agriculture

---

Aloha Chair Luke, Vice Chair Cullen, and members of the committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **supports HB2167**, which establishes and appropriates funding for a cover crop reimbursement pilot program within the state Department of Agriculture to provide up to 100% reimbursement to farmers for purchase of cover crop seed. Support for practices that foster healthy soils, such as the planting of cover crops, is a priority of the Sierra Club during the 2020 legislative session.

### **Improved soil health is good for agriculture**

The United States Department of Agriculture affirms that managing soil health is “one of the most effective ways for farmers to increase crop productivity and profitability while improving the environment.” Both small and large producers who implement practices to improve soils see benefits such as increased crop production from encouraging soils rich in organic matter and nutrients, increased profit from optimizing inputs by reducing the need for fertilizers, pesticides, and water, and reduced farm labor and machinery fuel expenses.<sup>1</sup>

### **Improved soil health benefits the climate**

Studies from the Intergovernmental Panel on Climate Change show that agriculture, forestry, and other types of land use account for 23% of human greenhouse gas emissions, making it a significant contributor to the climate crisis. At the same time, natural land processes absorb carbon dioxide equivalent to almost a third of carbon dioxide emissions from fossil fuels and industry practices.<sup>2</sup> Modern agricultural practices can be improved to harness the natural power of photosynthesis in plants to pull carbon from the atmosphere and sequester it in the ground.

### **Cover crops can improve soil health**

Incorporation of cover crops into production systems can have economic and environmental benefits. So much so that the USDA Natural Resource Conservation Service's Environmental Quality Incentive Program (EQIP) supports land managers to implement conservation best practices like cover cropping. In fact, cover cropping is one of the top ten most commonly used

---

<sup>1</sup> <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/>

<sup>2</sup> [https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource\\_srccl/](https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource_srccl/)

conservation practices in EQIP contracts in Hawai'i.<sup>3</sup> However, not nearly all local farms are able to access conservation planning and federal funding programs. We support this bill as a low cost means to enable and expand the adoption of conservation practices on Hawai'i farms.

Achieving sustainability in our food and agricultural systems requires not just the stable foundation of research and willingness of producers but governmental support and leadership. Programs such as this simultaneously combat local crises of degraded soil restoration and the global carbon calamity by reducing the cost burden to farmers adopting agroecological production methods.

Thank you very much for this opportunity to provide testimony in **support of HB2167 HD1**.

Mahalo,  
Hunter Heavilin  
O'ahu Group Executive Committee Chair  
Volunteer, Sierra Club of Hawai'i

PhD Student in Political Agroecology  
Department of Geography & Environment  
University of Hawai'i at Manoa

---

<sup>3</sup> <https://conservation.ewg.org/eqip.php?fips=15000>



Board of Directors:

**House Committee on Finance**

Gary L. Hooser  
*President*

Thursday, February 20, 2020, 12:00 p.m., Conference Room 308

Andrea N. Brower  
Ikaika M. Hussey  
*Co-Vice Presidents*

**Hawai'i Alliance for Progressive Action strongly supports:  
HB 2167 HD1**

Kim Coco Iwamoto  
*Treasurer*

Bart E. Dame  
*Secretary*

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

I am submitting testimony on behalf of the Hawai'i Alliance for Progressive Action (HAPA) in strong support of HB 2167 HD1 which establishes a cover crop reimbursement pilot program to provide up to 100% cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure.

Paul Achitoff

Laura Harrelson

Kaleikoa Ka'eo

Michael Miranda

Walter Ritte Jr.

Pua Rossi-Fukino

Karen Shishido

Leslie Malulani Shizue Miki

Farmers are currently facing the most difficult agricultural economy since the 1980s. At the same time, many states are wrestling with the necessity of addressing environmental challenges. Many agricultural conservation practices offer multiple environmental and economic benefits for farmers and society. However, any farm management transition involves a certain amount of cost and risk, and some conservation practices offer purely public benefits. For these reasons, public programs that support farmers in adopting agricultural conservation practices are a critical element in advancing conservation broadly. [1]

Cover cropping is one such conservation practice that has been proven to provide multiple environmental and economic benefits. Cover crops have the potential to provide multiple benefits in a cropping system. They prevent erosion, improve soil's physical and biological properties, supply nutrients, suppress weeds, improve the availability of soil water, and break pest cycles along with various other benefits. [2]

Some farmers in Hawaii are already able to benefit from federal cover crop incentive programs administered by the Natural Resources Conservation Services (NRSC), Environmental Quality Incentives Program (EQIP) or the conservation stewardship program. A state-funded incentives program would complement federal programs by reaching farmers not currently meeting NRCS eligibility due to the length of their lease or other factors.

Please consider supporting HB 2167 HD1 which will both the economic viability of our local farmers as well as environmental conservation efforts.

Respectfully,



Anne Frederick,  
Executive Director

---

[1] Innovative State-Led Efforts to Finance Agricultural Conservation: John Feldmann and Vincent Gauthier Master of Environmental Management candidates (2019) Nicholas School of the Environment, Duke University Maggie Monast and Mark Rupp Environmental Defense Fund Britt Aasmundstad National Association of State Departments of Agriculture;  
<https://www.edf.org/sites/default/files/documents/innovative-state-led-efforts-finance-agricultural-conservation.pdf>

[2] Cover cropping to improve climate resilience; USDA Northeast Climate Hub;  
<https://www.climatehubs.usda.gov/hubs/northeast/topic/cover-cropping-improve-climate-resilience>



# HAWAI'I CENTER FOR FOOD SAFETY

## House Committee on Agriculture Hawai'i Center for Food Safety strongly supports: HB2167 HD1

Aloha Chair Luke, Vice Chair Cullen, and members of the committee,

My name is Lauryn Rego and I am the Director for the Hawai'i Center for Food Safety (CFS). CFS is a nationwide public interest, sustainable agriculture nonprofit organization whose missions include the promotion of agricultural production methods that are beneficial to the ecosystem. We have over 950,000 farmer and consumer members across the country, including nearly 14,000 in Hawai'i. On behalf of CFS and our members, I thank you for the opportunity to submit testimony today regarding this important bill.

CFS has been dedicated to addressing the human health and environmental impacts of our increased reliance on pesticide use in food production, both in the State of Hawai'i and nationally. We were instrumental in providing legal and communications support in the passage of numerous ordinances relating to pesticide use and disclosure, such as Kaua'i's Bill 2491 and Act 45 (Session Laws of Hawai'i 2018). Since 2014, we have worked closely with community members across the state, in all counties.

I am writing in strong support of HB2167 HD1 which establishes a cover crop reimbursement pilot program to provide up to 100% cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure.

Ensuring healthier soil by increasing the carbon content and soil organic matter can help enhance the long-term sustainability of Hawaii's agriculture and its resiliency to climate change. Improving soil health also improves and increases the soil's water holding capacity and water infiltration rate, enhances food crop yields and soil fertility, and beneficial biological microbial diversity and population, reduces soil erosion, and can even reduce atmospheric greenhouse gases by sequestering carbon.

Numerous sources, both internationally and nationally, have recognized the importance of healthy soils as a critical resource for supplying food security, diverse habitats, water storage, and climate resiliency. For example, the Food and Agriculture Organization of the United Nations and nations around the world, including the United States Department of Agriculture, has set soil health as a "building block" for climate smart agriculture and forestry. According to the French Ministry of Agriculture, even a small increase in soil carbon stock such as 0.4 percent annual growth rate of the soil carbon stock would make it possible to stop the present increase in atmospheric carbon dioxide, improve soil fertility, increase local agricultural production, and

### NATIONAL HEADQUARTERS

660 Pennsylvania Avenue, SE, Suite 302  
Washington, D.C. 20003  
T: 202-547-9359 F: 202-547-9429

### CALIFORNIA OFFICE

303 Sacramento Street, 2nd Floor  
San Francisco, CA 94111  
T: 415-826-2770 F: 415-826-0507

### PACIFIC NORTHWEST OFFICE

917 SW Oak Street, Suite 300  
Portland, OR 97205  
T: 971-271-7372 F: 971-271-7374

### HAWAI'I OFFICE

1132 Bishop Street, Suite 2107  
Honolulu, Hawaii 96813  
T: 808-681-7688

[office@centerforfoodsafety.org](mailto:office@centerforfoodsafety.org)

[centerforfoodsafety.org](http://centerforfoodsafety.org)



contribute to building climate resiliency.

Several agricultural practices have been shown to improve soil health, including, but not limited to, the use of cover crops, minimal soil disturbance, the utilization of compost and manure, and properly-managed rotational grazing of livestock.

It is in the interest of the State of Hawaii to provide incentives for the use of agricultural land management practices that will provide greenhouse gas benefits, enhance the sustainability of Hawaii's agricultural lands, decrease sedimentation of the marine environment, and improve the sustainability and climate resilience of Hawaii's agricultural sector through sequestering the carbon content or increasing organic matter of the soil.

**We strongly support HB2167 HD1, which will help establish a state program to incentivize cover cropping to serve Hawai'i's many small farmers who may not qualify for existing national programs due to the length of their leases.**

Thank you for this opportunity to provide testimony,

Respectfully,

A handwritten signature in black ink, appearing to read 'Lauryn Rego', is placed over a light gray rectangular background.

Lauryn Rego  
Director, Hawai'i Center for Food Safety



Josh Frost - President • Patrick Shea - Treasurer • Kristin Hamada  
Nelson Ho • Summer Starr

Wednesday, February 19, 2020

Relating to Sustainable Agriculture  
Testifying in Support

Aloha Chair and members of the committee,

The Pono Hawai'i Initiative (PHI) **supports HB2167, HD1 Relating to Sustainable Agriculture**, which creates a cover crop reimbursements pilot program that would reimburse a 100% of the costs to farming operations that acquire cover crop seeds or green manure.

This measure aligns with the State's sustainability goals and will help encourage good agricultural practices. It is in the State's best interest to encourage and incentivize good agricultural management practices.

For all these reasons, we urge you to move this bill forward.

Mahalo for the opportunity,  
Gary Hooser  
Executive Director  
Pono Hawai'i Initiative

**LARRY JEFTS FARMS, LLC  
PO BOX 27  
KUNIA, HAWAII 96759  
(808) 688-2892**

HB2167HD1, Relating to Sustainable Agriculture  
Hse FIN Hearing  
Thursday, February 20, 2020 – Agenda 2  
12:00pm  
Conference Room 308

Testimony by: Larry Jeffs  
Position: Support

Chair Luke, Vice Chair Cullen and Members of the House FIN Committee:

I am Larry Jeffs, owner and operator of Larry Jeffs Farms, LLC, which is part of our family-run business of farms on Oahu and Molokai, under the administrative umbrella of Sugarland Growers, Inc. We have more than 35 years of Hawaii farm experience on Molokai and Oahu. I am a volunteer director for the West Oahu Soil and Water Conservation District (SWCD).

As a soil conservation participant and from my own farming experience, I know that cover crop planting is an important and effective method of increasing crop production by replenishing soil nutrients, preventing erosion and nonpoint source pollution. Establishing the proposed pilot cover crop reimbursement program will increase the number of farmers who can then afford to buy cover crop seeds. This fits in well with overall farm production best practices.

Your support of this program is appreciated and needed. Thank you for consideration of this testimony.

**HB-2167-HD-1**

Submitted on: 2/19/2020 1:32:15 PM

Testimony for FIN on 2/20/2020 12:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jessica dos Santos	Individual	Support	No

Comments: