

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER  
Chairperson, Board of Agriculture

MORRIS M. ATTA  
Deputy to the Chairperson

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

TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER  
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

FEBRUARY 7, 2022  
1:00 P.M.  
VIA VIDEOCONFERENCE

SENATE BILL NO. 2675  
RELATING TO SUSTAINABLE AGRICULTURE

Chairperson Gabbard, and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 2675. The bill requires the Department to establish a three-year cover crop reimbursement pilot program to reimburse farming operations in the State for the costs of acquiring cover crop seeds, green manure or compost.

The Department supports the intent of the bill emphasizing the advantages cover crop systems may have to increase soil health and agricultural productivity in the State. The Department also has concerns that there may be unwanted disadvantages of using cover crops, such as potential increase in the presence of insect pests or plant diseases that may adversely impact crops following cover crops if the cover crop species list is not thoroughly evaluated. The Department offers assistance to collaborate with UH CTAHR researchers and Cooperative Extension Specialists to update cover crop research. Susceptibility tests of grass cover crops for spittle bugs is highly recommended. Some cover crops may also exhibit allelopathic interactions with other crops, releasing biochemicals with potentially harmful effects to successive crops. Poorly or incompletely managed cover crops can behave like noxious weeds, if left unchecked. In addition, most cover crops commonly recommended and used in the



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State are not native to Hawaii and some may be susceptible to the new invasive pasture pest, the Two Lined Spittle Bug.

Thank you for the opportunity to submit testimony.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
Senate Committee on Agriculture and Environment  
Monday, February 7, 2022 at 1:00 p.m.

By  
Nicholas Comerford, Dean  
College of Tropical Agriculture and Human Resources  
And  
Michael Bruno, PhD  
Provost  
University of Hawai'i at Mānoa

### SB 2675 – RELATING TO SUSTAINABLE AGRICULTURE

Chair Gabbard, Vice Chair Nishihara, and members of the Senate Committee on Agriculture and Environment:

Thank you for this opportunity to provide testimony in support of the intent of SB 2675 on establishing a cover crop reimbursement pilot program to be administered by the Hawai'i Department of Agriculture (HDOA). This bill could be combined with SB 2990 and SB 3005 as they have similar objectives, but different levels of detail.

Our comments below are similar to those provided for SB 2990 and SB 3005:

Soil health and agriculture sustainability has been shown to be dependent on protecting, maintaining and increasing soil organic matter. Cover cropping is one tool that has shown to be effective in building soil organic matter which results in maintaining soil stability during a fallow period, increasing soil water retention capacity, increasing soil nutrient retention and release capacity, and enhancing soil microorganism biodiversity. Cover cropping can be a tool in a cropping system that has value during a fallow period or can also be an intra-rotation crop with its own economic value.

This bill establishes a three-year pilot program to reimburse producers for some of the costs of cover cropping run by HDOA. We recommend the following concept be added to the purpose of the pilot program: For producers to evaluate the economic cost-benefit of cover cropping to prepare for the time when subsidies end. Further, that producers use this pilot program to evaluate profit producing cover crop opportunities; as it would add to the post-subsidy and economic viability of cover cropping that will be necessary in the long-run.

We also note that the bill identifies a cover crop database maintained by the College of Tropical Agriculture and Human Resources. The Cover Crops and Green Manures can

be found at <https://cms.ctahr.hawaii.edu/soap/Resources/Sustainable-and-Organic-Topics/cc-gm>.

The University of Hawai'i supports the intent and language of SB 2675 and have provided comments on additional language. We suggest that this bill be combined with SB 2990 and SB 3005 which have the same intent. We defer to HDOA as to its ability to meet the stated goals.



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 7, 2022

HEARING BEFORE THE  
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

**TESTIMONY ON SB 2675**  
RELATING TO SUSTAINABLE AGRICULTURE

Conference Room 224 & Videoconference  
1:00 PM

Aloha Chair Gabbard, Vice-Chair Nishihara, 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 SB 2675**, which establishes a three-year cover crop reimbursement pilot program to provide reimbursement to farming operations in the State for costs related to cover cropping and establishes a cover crop reimbursement pilot program manager position within the department of agriculture to administer the program.

HFB agrees that the use of cover crops increases agricultural productivity and is a beneficial management practice. We strongly support the concept of building soil structure and nutrient capacity. Caring for the soil is a cornerstone to having multigenerational farms that continue to provide for the people of Hawaii.

Farming is a tough business. High production costs are a major driver of narrow profit margins for Hawaii's farmers. Land, water, labor, taxes, transportation, utilities, inputs, invasive species, and food safety regulations are all costs of doing business that often results in our farmers just being able to break even. HFB supports this initiative that could reduce the cost of production for local farmers by incentivizing cover cropping. This is another mechanism that can help locally produced goods compete with imported products, strengthening our local economy.

Thank you for this opportunity to testify on this important subject.

**SB-2675**

Submitted on: 2/3/2022 4:47:34 PM

Testimony for AEN on 2/7/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Barbara Barry	Individual	Support	No

Comments:

Aloha,

I strongly support SB 2675.

Mahalo

Barbara Barry



## **Senate Committee on Agriculture and Environment**

### **Hawai'i Alliance for Progressive Action (HAPA) Supports: SB2675**

Monday, February 7th, 2022 1:00 p.m. Conference Room 224

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

HAPA strongly supports SB2675, relating to sustainable agriculture, which would establish a three-year cover crop reimbursement pilot program to provide reimbursement to farming operations in the State for costs related to cover cropping. It would also create a program manager position to administer the program.

HAPA believes that SB2675 is part of the solution to establishing a sustainable, profitable and regenerative agriculture system for Hawai'i while improving our land management practices for the better.

SB2675 will help encourage the use of cover crops which create closed loop systems and eliminate the cost of synthetic inputs while recycling, and even fixing, nutrients within the soil. Good healthy soil is one of the important factors to increase local food production and support regenerative farming practices.

Cover crops improve water quality, soil health, and build resiliency in the face of climate change. They are one of the most common, accessible agricultural strategies for improving soil health and water retention and preventing nitrogen pollution in water and erosion—to the benefit of both the environment and the farmer <sup>[1]</sup>.

Covered crops are considered a Best Management Practice (BMP) widely used in agriculture for nutrient loss reduction and soil conservation <sup>[2]</sup>.

Cover crops are crucial to the nutrient cycle and the development of fertile soil and because of this trait are sometimes referred to as "green manure." This is because cover crops are used to manage a range of soil macronutrients and micronutrients <sup>[3]</sup>. Of the various nutrients, the impact that cover crops have on nitrogen management has received the most attention from researchers and farmers, because nitrogen is often the most limiting nutrient in crop production <sup>[4]</sup>.

In the same way that allelopathic properties of cover crops can suppress weeds, they can also break disease cycles and reduce populations of bacterial and fungal diseases and parasitic nematodes. For example, species such as mustards, have been shown to suppress fungal disease through the release of naturally occurring toxic chemicals.

Similarly, some cover crops are used as so-called "trap crops", to attract pests away from the crop of value and intentionally toward the cover crop.

The many benefits of cover crops include that they:

- Grow our agriculture sector through cover crop seed production;
- Support sustainable farming practices and healthy soil;
- Remediate depleted soil from industrial farming systems;
- Build organic matter (soil quality) and improve soil fertility (nutrients);
- Reduce the need for synthetic fertilizers and save farmers money in inputs;
- Support native species and biodiversity;
- Increase water infiltration and water retention;
- Suppress weeds resulting in less herbicide use;
- Provide disease and pest management;
- Reduce wind and water erosion and conserves top soil; and
- Prevent runoff from impacting sensitive environments, water sources, nearshore reefs and fisheries.

Similar cover crop reimbursement programs to SB2675 have been successfully implemented in other states and work to incentivise cover crop planting and growth <sup>[1,2]</sup>.

HAPA strongly supports SB2675 and believes it is part of the solution to growing our local food production and economy and a more regenerative agricultural system for Hawai'i.

Thank you for your consideration.

Respectfully,



Anne Frederick  
Executive Director

[1] Civil Eats: Held, Lisa (2020) *Two States are Leading a Cover Crop Revival*

<https://civileats.com/2020/02/11/two-states-are-leading-a-cover-crop-revival/>

[2] NASDA (2019) *Innovative State-Led Efforts to Finance Agricultural Conservation*,

<https://s3.amazonaws.com/nasda2/media/innovative-state-led-efforts-finance-agricultural-conservation.pdf>

[3] USDA Natural Resource Conservation Service; *Healthy Soils: Are Covered All The Time*

<https://nrcspad.sc.egov.usda.gov/distributionCenter/pdf.aspx?productID=1026>

[4] The New York Times: Strom, Stephanie (2016) *Cover Crops, a Farming Revolution with Deep Roots in the Past* [https://www.nytimes.com/2016/02/07/business/cover-crops-a-farming-revolution-with-deep-roots-in-the-past.html?\\_r=0](https://www.nytimes.com/2016/02/07/business/cover-crops-a-farming-revolution-with-deep-roots-in-the-past.html?_r=0)



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

SB2675, Sustainable Agriculture  
Senate AEN Hearing  
Monday, February 7, 2022  
1:00 pm

Testimony by: Larry Jeffs  
Position: Support

Chair Gabbard, Vice Chair Nishihara, and Members of the Sen AEN Committee:

I am Larry Jeffs, owner and operator of Larry Jeffs Farms, LLC. We have more than 42 years of Hawaii farm experience on Molokai and Oahu. Our family farms grow about 1 million pounds weekly of import replacement produce. I am a volunteer director, serving as Chair of the West Oahu Soil and Water Conservation District (SWCD). I have been an officer of the Hawaii Farm Bureau for many years.

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. Cover crops replenish soil nutrients, prevent erosion and nonpoint source pollution. Establishing the proposed pilot cover crop reimbursement program will increase the number of farmers who can 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 your consideration of this testimony.

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**  
TESTIMONY BY CRAIG K. HIRAI  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT  
ON  
SENATE BILL NO. 2675

**February 7, 2022**  
**1:00 p.m.**  
**Room 224 and Videoconference**

RELATING TO SUSTAINABLE AGRICULTURE

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2675 requires the Department of Agriculture to: establish and implement a three-year cover crop reimbursement pilot program to reimburse farming operations for the costs of cover cropping; establish the 1.00 exempt temporary pilot program manager position that may receive a salary not to exceed \$50,000 annually; and submit interim reports to the Legislature. This bill also appropriates an undetermined amount of general funds in FY 23 to effectuate the program, provided that up to \$20,000 may be used for the program's administrative costs.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



COMMITTEE ON AGRICULTURE AND ENVIRONMENT  
Senator Mike Gabbard, Chair  
Senator Clarence K. Nishihara, Vice Chair

**SB2675**  
RELATING TO SUSTAINABLE AGRICULTURE

Monday, February 7, 2022, 1:00 PM  
VIA VIDEOCONFERENCE

Chair Gabbard, Vice Chair Nishihara, and Members of the Committee,

The Hawaii Cattlemen's Council (HCC) is the Statewide umbrella organization comprised of the five county level Cattlemen's Associations. Our member ranchers represent over 60,000 head of beef cows; more than 75% of all the beef cows in the State. Ranchers are the stewards of over 750 thousand acres of land in Hawaii, or 20% of the State's total land mass. We represent the interests of Hawaii's cattle producers.

The Hawaii Cattlemen's Council **supports SB2675** to establish a three-year cover crop reimbursement pilot program to provide reimbursement to farming operations in the State for costs related to cover cropping.

Agricultural lands have the ability to benefit the environment while feeding the community. Hawaii's ranchers are always looking for ways to ensure that the health of the land is prioritized, as stewarding the land is paramount in ensuring their operations can remain productive for future generations. Any assistance to help with increasing soil quality, sequestering carbon, and preventing erosion is welcome. As Hawaii Island ranchers combat the Twolined Spittlebug and Maui Nui ranchers contend with invasive deer, cover crops will continue to be an important tool to cover any bare soil caused by these invasive species.

We appreciate the opportunity to testify on this measure.

Nicole Galase  
Hawaii Cattlemen's Council  
Managing Director







To: The Senate Committee on Agriculture and Environment  
From: Sherry Pollack, Co-Founder, 350Hawaii.org  
Date: Monday, February 7, 2022, 1:00 pm

**In strong support of SB2675**

Aloha Chair Gabbard, Vice Chair Nishihara, and Committee members of AEN;

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org is in **strong support of SB2675**.

This bill will support farmer adoption of conservation agriculture practices. Cover crops are an essential step in regenerative agriculture which is the most promising avenue to sequestering carbon and addressing the climate crisis. Cover crops reduce the need for fossil fuel-based soil amendments, and preserves water and prevents run offs which protects the reefs. Cover crops are one of the most common, accessible agricultural strategies for improving soil health. Healthy soils make healthier food. Every farmer who learns about and adopts cover crops helps mitigate the climate crisis.

Please support this important bill towards healthy soils, healthy food systems, and carbon sequestration. We will all benefit!

Thank you for the opportunity to testify on this very important legislation.

Sherry Pollack  
Co-Founder, 350Hawaii.org