

**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 COMMITTEE ON  
AGRICULTURE**

**MARCH 18, 2022**

**9:00 A.M.**

**CONFERENCE ROOM 325 & VIA VIDEOCONFERENCE**

**SENATE BILL NO. 2990 SENATE DRAFT 1  
RELATING TO AGRICULTURE**

Chairperson Hashem and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 2990 SD1. The bill requires the Department of Agriculture ("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 recommends adding clear criteria and standards for distribution of public funds through a grant or subsidy program that the panel experts must consider when evaluating applications submitted for the program to ensure it can be implemented properly and effectively. Examples of such criteria and standards for can be found in Sections 10-17, 201D-11, and 383-128, Hawaii Revised Statutes ("HRS") and Part II of Chapter 9, HRS.



The Department also has concerns that since most cover crops commonly recommended and used in the State are not native to Hawaii, if the cover crop species list is not thoroughly evaluated, there may be unintended adverse consequences of using cover crops, such as: potential increase in the presence of insect pests or plant diseases that may adversely impact successive crops; allelopathic interactions with other crops; release of biochemicals with potentially harmful effects to successive crops; noxious weed problems if poorly or incompletely managed, and susceptibility to newly introduced invasive pests that are actively targeted for elimination or control, such as the Two Lined Spittle Bug. . The Department offers assistance to collaborate with UH CTAHR researchers and Cooperative Extension Specialists to assess and address such risks in these matters.

The Department would need additional resources to administer a cover crop reimbursement program. Furthermore, the Department notes there is another measure, SB 2288, SD1, that establishes a compost reimbursement program and if adopted, this measure may duplicate the reimbursement of “green manures” or compost.

Thank you for the opportunity to submit testimony.

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

**STATE OF HAWAII  
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

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

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 HOUSE COMMITTEE ON AGRICULTURE  
ON  
SENATE BILL NO. 2990, S.D. 1

**March 18, 2022  
9:00 a.m.  
Room 325 and Videoconference**

RELATING TO SUSTAINABLE AGRICULTURE

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

Senate Bill No. 2990, S.D. 1, requires the Department of Agriculture (DOA) to establish and implement a three-year cover crop reimbursement pilot program to reimburse qualified farmers or ranchers up to 75% of the costs for cover crop seeds, green manure, or compost; establishes 1.00 exempt temporary pilot program manager position that may receive a salary not to exceed \$50,000 annually; and requires the DOA to 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 an undetermined maximum amount 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:

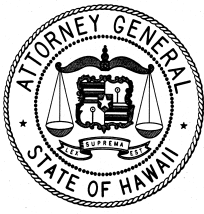
- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support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



**TESTIMONY OF  
THE DEPARTMENT OF THE ATTORNEY GENERAL  
THIRTY-FIRST LEGISLATURE, 2022**

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**ON THE FOLLOWING MEASURE:**

S.B. NO. 2990, S.D. 1, RELATING TO SUSTAINABLE AGRICULTURE.

**BEFORE THE:**

HOUSE COMMITTEE ON AGRICULTURE

**DATE:** Friday, March 18, 2022

**TIME:** 9:00 a.m.

**LOCATION:** State Capitol, Room 325, Via Videoconference

**TESTIFIER(S):** Holly T. Shikada, Attorney General, or  
Jodi K. Yi or Bryan C. Yee, Deputy Attorneys General

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Chair Hashem and Members of the Committee:

The Department of the Attorney General provides the following comments regarding this bill.

This bill would establish and appropriate moneys for a cover crop reimbursement pilot program to reimburse farming operations in the State for the costs of acquiring cover crop seeds, green manure, or compost, on page 1, lines 12-15. This program appears to provide an appropriation of public money, which would be subject to article VII, section 4, of the Constitution of the State of Hawaii.

Article VII, section 4, of the Constitution of the State of Hawaii provides, "[n]o grant of public money or property shall be made except pursuant to standards provided by law." Because this bill does not include sufficient standards for the Department of Agriculture to distribute the funds to reimburse farming operations, it will not be able to make the reimbursements intended by this bill. We therefore recommend that this bill be amended to insert sufficient standards for the Department of Agriculture to distribute the funds appropriated in this bill. Examples of existing statutes that provide standards for agencies to expend funds are part II of chapter 9, and sections 10-17, 210D-11, and 383-128, Hawaii Revised Statutes, which provide standards for the administrative grant of public money.

Thank you for the opportunity to present this testimony.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
House Committee on Agriculture  
Friday, March 18, 2022 at 9:00 a.m.

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

### SB 2990 SD1 – RELATING TO SUSTAINABLE AGRICULTURE

Chair Hashem, Vice Chair Perruso, and members of the House Committee on Agriculture:

Thank you for the opportunity to provide testimony in support of the intent of SB 2990 SD1 on establishing a cover crop reimbursement pilot program to be administered by the Hawai'i Department of Agriculture (HDOA).

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. The bill establishes a temporary position to manage the program, recognizing that HDOA is suffering from lack of sufficient personnel.

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.

The University of Hawai'i supports the intent and language of SB 2990 SD1 and have provided comments on additional language. We defer to HDOA as to whether the amount of temporary staff and subsidy funding is sufficient to allow the department to meet the stated goals.

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

SB2990sd1, Sustainable Agriculture  
House AGR Hearing  
Friday, March 18, 2022 – 9:00am  
CR 325

Testimony by: Larry Jeffs  
Position: Support

Chair Hashem, Vice Chair Perruso, and Members of the House AGR 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 produce 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.



To: The House Committee on Agriculture  
From: Sherry Pollack, Co-Founder, 350Hawaii.org  
Date: Friday, March 18, 2022, 9am

**In strong support of SB2990 SD1**

Aloha Chair Hashem, Vice Chair Perruso, and Agriculture Committee members,

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 SB2990 SD1**.

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



**SB-2990-SD-1**

Submitted on: 3/16/2022 8:31:31 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Climate Protectors Hawai'i	Support	Written Testimony Only

Comments:

To: The Honorable Mark Hashem, Chair, the Honorable Amy Perruso, Vice Chair, and Members of the House Committee on Agriculture

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing SB2990 SD1 RELATING TO SUSTAINABLE AGRICULTURE.

Friday March 18, 2022, 9:00 a.m., by videoconference

Aloha Chair Hashem, Vice Chair Perruso, and Members of the House Committee on on Agriculture!

The Climate Protectors Hawai'i is a group focused on reversing the climate crisis and encouraging Hawai'i to lead the world towards a safe and sustainable climate and future. **The Climate Protectors Hawai'i STRONGLY SUPPORTS SB2990 SD1!**

This bill would establish a cover crop reimbursement pilot program to provide up to seventy-five per cent cost reimbursement to farming operations in the State for acquiring cover crop seeds, green manure, or compost. The bill also would fund a cover crop reimbursement pilot program manager position within the Department of Agriculture to administer the program. **Cover crops green manure, and compost should be encouraged as they reduce carbon emissions, replenish the soils, and reduce erosion and non-point source water pollution.**

**Please pass this bill!**

Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)



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)

March 18, 2022

HEARING BEFORE THE  
HOUSE COMMITTEE ON AGRICULTURE

**TESTIMONY ON SB 2990, SD1**  
RELATING TO SUSTAINABLE AGRICULTURE

Room 325 & Videoconference  
9:00 AM

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

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

**The Hawai'i Farm Bureau supports SB 2990, SD1**, which establishes a cover crop reimbursement pilot program to provide up to seventy-five percent cost reimbursement to farming operations in the State for acquiring cover crop seeds, green manure, or compost and creates 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 and green manure 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 Hawai'i. Many of our farms add compost made off-site as well as utilize short-term fallow between crop cycles to increase organic content in their soils. HFB recognizes and supports the diversion of discarded food and other useful wastes away from landfills. The benefits of this and of composting are well-known.

Farming is a tough business. High production costs are a major driver of narrow profit margins for Hawai'i'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, with a 75% match, cover crops seeds, green manure, and compost material. 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.



**Officers**

Vincent Mina  
State President

Anabella Bruch  
Vice-President

Maureen Datta  
Secretary

Reba Lopez  
Treasurer

**Chapter Presidents**

Dash Kuhr  
Kohala, Hawaii

Drake Weinert  
East Hawaii

Steve Lund  
Puna, Hawaii

Andrea Drayer  
Ka'u, Hawaii

Maureen Datta  
Kona, Hawaii

Robert Boudreaux  
Hana, Maui

Reba Lopez  
Haleakala, Maui

Bobby Pahia  
Mauna Kahalawai, Maui

Kaipo Kekona  
Lahaina, Maui

Brynn Foster  
North Shore, Oahu

Christian Zuckerman  
Wai'anae, Oahu

Vincent Kimura  
Waimanalo, Oahu

Anabella Bruch  
Kauai

Aloha Chair Hashem, Vice Chair Perruso, and Members of the House Agriculture Committee,

The Hawaii Farmers Union United (HFUU) is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. **HFUU supports the intent of SB2990 and seeks amendments** to best incentivize conservation agriculture practices.

SB2990 as written is a copy of outdated prior bills ([SB2704 \(2020\)](#), [SB337 \(2021\)](#)). Following input from producers and technical assistance providers, the updates in [SB2675 \(2022\)](#) employ the cover crop reimbursement approach used by the USDA Natural Resource Conservation Service and multiple other states.

In lieu of seed cost share in SB2990, **we recommend the program provide reimbursement per acre** at set rates for single- and multi-species cover cropping. Cover crop seed is only a small fraction of total costs (labor, machinery, etc) and thus may not provide sufficient incentive for adoption of this conservation agriculture practice.

Furthermore, the amendments on the following pages would allocate funding based on the distribution of farm sizes, bolstering farm equity in access to state subsidies. HFUU supports this program and approach as means to support small and family farmers as well as any producer seeking to support their soil health.

Mahalo for the opportunity to testify.

Vincent Mina President HFUU/HFUF

SECTION 2. (a) The department of agriculture shall establish and implement a three-year cover crop reimbursement pilot program to reimburse farming operations in the State for the costs of[ ~~acquiring~~] cover cropping[ ~~seeds, green manure, or compost~~].

(b) Each application for cost reimbursement shall be submitted on a form furnished by the department of agriculture and shall be accompanied by documentation of the costs incurred [~~of items purchased~~], pursuant to subsection (c); provided that:

(1) The applicant shall indemnify and hold harmless the State and its officers, agents, and employees from all claims arising out of or resulting from the cover cropping [~~seeds, green manure, or compost purchased~~]; and

(2) The department of agriculture may request that the applicant provide additional information for the purposes of verifying the costs claimed are directly related to cover cropping [~~volume of cover crop seeds, green manure, or compost purchased~~].

(c) Applications for reimbursement under the cover crop reimbursement pilot program shall be filed for costs incurred [~~cover crop seeds, green manure, and compost purchased~~] within the fiscal year immediately preceding the filing and shall be effective for costs of the purchases incurred after June 30, 2022, and before July 1, 2025. Each application shall include a certification that the amount for which the applicant seeks reimbursement has not been nor will be reimbursed by any other governmental cover crop incentive program, including the United States Department of Agriculture, Natural Resources Conservation Service's environmental quality incentives program and the conservation stewardship program.

(d) Reimbursement for cover cropping costs incurred [~~if an application is approved, funds shall be disbursed upon approval by the department of agriculture on an annual basis to the farmer or rancher for up to seventy five per cent of the costs incurred for cover crop seeds, green manure, or compost purchased~~] after June 30, 2022, and before July 1, 2025, shall be as follows: [.]

(1) For a single-species cover crop, the farmer or rancher shall be reimbursed \$  
multiplied by the number of acres upon which the cover crop is planted; or

(2) For a multi-species cover crop, the farmer or rancher shall be reimbursed \$  
multiplied by the number of acres upon which the cover crop is planted.

(e) Moneys shall be disbursed by the department to the farmer or rancher based on the United States Department of Agriculture, National Agricultural Statistics Service's 2017 Census of Agriculture's typology of farm size as follows: [~~The department of~~

~~agriculture shall convene a review panel comprising knowledgeable representatives from the department of agriculture, University of Hawaii at Manoa college of tropical agriculture and human resources, and industry organizations. The panel shall screen and rate applicants on the quality and appropriate use of their cover crops and green manure and their composting practices. The department shall aggregate the total reimbursement applications pursuant to this section and distribute the available moneys based on a ranking scale as determined by the review panel; provided that a higher ranked applicant shall receive a higher rate of reimbursement than a lower ranked applicant.]~~

- (1) Sixty-three per cent to farms and ranches that are less than ten acres in size;
- (2) Twenty-seven per cent to farms and ranches that are at least ten acres and up to fifty acres in size;
- (3) Six per cent to farms and ranches that are at least fifty acres and up to one hundred eighty acres in size;
- (4) Two per cent to farms and ranches that are at least one hundred eighty acres and up to five hundred acres in size;
- (5) One per cent to farms and ranches that are at least five hundred acres and up to one thousand acres in size; and
- (6) One per cent to farms and ranches that are at least one thousand acres in size.

(f) 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; provided that no farming operation shall receive a total reimbursement of more than \$ \_\_\_\_\_ per year.

(g [f]) There is established within the department of agriculture a cover crop reimbursement pilot program manager position, which shall be a full-time temporary position exempt from the requirements of chapters 76 and 89, Hawaii Revised Statutes. The cover crop reimbursement pilot program manager shall receive a salary not exceeding \$50,000 per year. The cover crop reimbursement pilot program manager shall possess a requisite level of knowledge and expertise in the area of program management necessary to carry out the duties of the position. The cover crop reimbursement pilot program manager shall:

- (1) Facilitate the division and distribution of available costs for reimbursement; and
- (2) Manage the day-to-day coordination of the cover crop

reimbursement pilot program.

(~~h~~ [~~g~~]) Any action taken by the department of agriculture pursuant to this section shall be exempt from the rulemaking requirements of chapter 91, Hawaii Revised Statutes.

(~~i~~ [~~h~~]) The department of agriculture shall submit an interim report of its findings and recommendations relating to activities conducted pursuant to this Act, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2025 and a final report no later than twenty days prior to the convening of the regular session of 2026. The report shall include: [~~the department's recommendation on whether the pilot program should be extended, with or without modifications.~~]

(1) The number of acres of land upon which cover crops are grown under the pilot program;

(2) The total amount spent by the pilot program, broken down by category; and

(3) The department's recommendation on whether the pilot program should be extended, with or without modifications.

(~~j~~ [~~i~~]) As used in this section:

~~["Compost" means a product of a composting process.~~

~~"Compostable materials" includes pre and post consumer food waste, waste from animal food processing operations, green waste, crop residues, and waste from vegetable food processing operations and similar materials.~~

~~"Composting process" means a process in which organic compostable materials are biologically decomposed under controlled conditions to produce a stable humus like mulch or soil amendment, and includes:~~

- ~~—(1) The receipt of materials;~~
- ~~—(2) Primary processing;~~
- ~~—(3) Decomposition activities; and~~
- ~~—(4) Final processing for sale and marketing.]~~

"Cover crop" [~~and "green manure"~~] means the plants listed in the cover crop [~~and green manure~~] database maintained by the University of Hawaii at Manoa college of tropical agriculture and human resources, except bermuda grass and other invasive or fast-growing grasses.

"Cover crop" means the plants listed in the cover crop database maintained by the university of Hawaii college of tropical agriculture and human resources. "Cover crop" does not include any invasive or fast-growing grasses, or both, including Bermuda grass.

"Department" means the department of agriculture.

"Farming operation" has the same meaning as in section 165-2, Hawaii Revised Statutes.



## House Committee on Agriculture

Friday, March 18th, 2022, 9:00a.m. Conference Room 325

### **Hawai'i Alliance for Progressive Action Supports: SB2990 SD1**

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

HAPA strongly supports SB2990 SD1, relating to sustainable agriculture, which would establish a cover crop reimbursement pilot program to provide up to 75% cost reimbursement to farming operations in the State for acquiring cover crop seeds, green manure, or compost.

HAPA believes that SB2990 SD1 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.

SB2990 SD1 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 SB2990 SD1 have been successfully implemented in other states and work to incentivise cover crop planting and growth<sup>[1,2]</sup>.

HAPA strongly supports SB2990 DS1 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*,

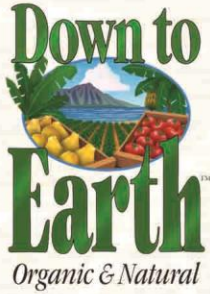
<https://s3.amazonaws.com/nasda2/media/innovative-state-led-efforts-finance-agricultural-conservation.pdf>

[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)

Love Life!



SB2990 SD1 RELATING TO SUSTAINABLE AGRICULTURE  
House Committee on Agriculture  
March 18, 2022, 9:00am State Capitol

Aloha Rep. Mark J. Hashem, Chair, Rep. Amy A. Perruso, and Committee Members.

**Down to Earth Organic and Natural testifies in support of SB2990 SD1.**

*Down to Earth Organic and Natural has six locations on Oahu and Maui. Since we opened in 1977, we have supported healthy lifestyles and preservation of the environment by selling local, fresh, organic and natural products, and by promoting a healthy, plant-based and vegetarian lifestyle.*

We are strongly in support of SB2990 SD1, establishing a cover crop reimbursement pilot program to provide up to 75% cost reimbursement to farming operations in the State for the acquisition of cover crop seeds, green manure, or compost.

Down to Earth is dedicated to the long-term sustainability and health of the people in our communities as well as the land. This bill is crucial to encourage and incentivize our farmers to utilize in cover crops, green manure, and compost. Please pass this measure to enhance the quality and sustainability of Hawaii's agricultural lands.

Thank you for the opportunity to comment on this bill.

Alison Riggs  
Public Policy & Government Relations Manager  
Down to Earth

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**Oahu Locations**

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**Hawaii Cattlemen's Council, Inc.**

COMMITTEE ON AGRICULTURE  
Rep. Mark J. Hashem, Chair  
Rep. Amy A. Perruso, Vice Chair

**SB2990 SD1**  
RELATING TO SUSTAINABLE AGRICULTURE

Friday, March 18, 2022, 9:00 AM  
VIA VIDEOCONFERENCE

Chair Hashem, Vice Chair Perruso, 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 **offers comments on SB2990 SD1** to establish a cover crop reimbursement pilot program to provide up to seventy-five percent cost reimbursement to farming operations in the State for acquiring cover crop seeds, green manure, or compost and creates a cover crop reimbursement pilot program manager position within the Department of Agriculture to administer the program.

Ranchers are very aware of the detriment of invasive species, but one key factor to note is under what circumstances a species becomes invasive. In the case of Bermuda grass as a ground cover, it would not be ideal if left untended, but as a forage that is grazed upon it is controlled and does not take on the properties of an invasive plant. We warn against including language that excludes grasses, as these grasses could be suitable cover crops in addressing Twolined Spittlebug damage or fire damage. We are concerned that this language would also potentially prohibit the inclusion of mulato and signal grass, which are varieties that are showing resistance to Twolined Spittlebugs and are quality forage for cattle.

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



**SB-2990-SD-1**

Submitted on: 3/17/2022 7:06:49 PM

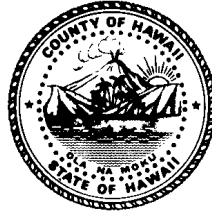
Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
laurel brier	Kauai women's caucus	Support	Written Testimony Only

Comments:

Decades of monocropping has depleted our soils. Investing in revitalizing our soil with cover crops and other regenerative agricultural practices is the best way to support local farmers and food security for the islands AND sequester carbon. Please pass SB2990

REBECCA VILLEGAS  
Council Member  
District 7, Central Kona



PHONE: (808) 323-4267  
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HAWAI'I COUNTY COUNCIL  
West Hawai'i Civic Center, Bldg. A  
74-5044 Ane Keohokalole Hwy. Kailua-Kona, Hawai'i 96740

March 16, 2022  
TESTIMONY OF REBECCA VILLEGAS  
COUNCIL MEMBER, HAWAI'I COUNTY COUNCIL  
ON SB 2990 SD1, RELATING TO SUSTAINABLE AGRICULTURE  
Committee on Agriculture  
Friday, March 18, 2022 at 9:00 a.m.

Aloha Chair Hashem and Members of the Committee:

I thank you for the opportunity to testify in support of SB 2990 SD1. My testimony is submitted in my individual capacity as a member of the Hawai'i County Council and Chair of the Hawai'i County Council Climate Resilience and Natural Resource Management Committee.

The purpose of this Act is to establish and appropriate moneys for a 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 use of cover crops, green manure, and compost increases agricultural productivity and aligns with the State's integrated sustainability goals. Plants used for this purpose, including grasses, legumes, and forbs, add nutrients to the soil, act as windbreaks, assist with water retention, provide habitats for beneficial insects, and help to prevent soil erosion.

It is in the interest of the State to incentivize the use of management practices that enhance the quality and sustainability of Hawaii's agricultural lands.

For the reasons stated above I urge the Committee on Agriculture to support this measure as well. Should you have any questions, please feel free to contact me at (808) 323-4267.

Mahalo for your consideration.

A handwritten signature in black ink, appearing to read "Rebecca Villegas".

Rebecca Villegas  
Council Member, Hawai'i County Council

**SB-2990-SD-1**

Submitted on: 3/16/2022 11:54:29 AM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Dana Keawe	Individual	Support	Written Testimony Only

Comments:

Support SB2990 SD1



**SB-2990-SD-1**

Submitted on: 3/16/2022 4:20:21 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Sunny Savage	Individual	Support	Written Testimony Only

Comments:

in support

**SB-2990-SD-1**

Submitted on: 3/16/2022 3:45:05 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
De Austin	Individual	Support	Written Testimony Only

Comments:

**Honorable chair and vice-chair, Senators Hashem and Perusso, as well as distinguished members of the Committee on Agriculture,**

**I support the bill SB2990 SD1.**

**Hawaii needs to develop a healthy, local agricultural system to provide our communities, our families, and our schools with vitamin rich produce and other farm raised products, which haven't suffered a loss of nutritional value being picked early, to survive a journey, traveling in container ships across 1000s of miles of ocean.**

**Improving and revitalizing our farm lands needs multiple points of healing. The most logical and commonplace way to re-enrich our valuable farm lands is to establish cover crops.**

**Cover crops improve water quality, soil health, and build resiliency in the face of climate change. They also prevent nitrogen pollution in water and erosion to the benefit of both the environment and the farmer and help with valuable water retention.**

**I support this bill SB 2990 SD1.**

**Thank you for the time to testify.**

**Respectfully,**

**D Austin**

**Kihei, Maui**



**SB-2990-SD-1**

Submitted on: 3/16/2022 5:37:49 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
luann casey	Individual	Support	Written Testimony Only

Comments:

I am in strong support of a cover crop reimbursement pilot program. It is vital that we support agriculture in Hawaii.

Thank you, Luann Casey

**SB-2990-SD-1**

Submitted on: 3/16/2022 11:11:57 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Janet L Pappas	Individual	Support	Written Testimony Only

Comments:

Dear AGR committee members,

I strongly support SB2990, a bill to incentivise the planting of cover crops by Hawaii farmers. First, planting cover crops (plants that are grown and then tilled into the soil to provide nutrients for the crops to be grown) saves farmers money because they then require less fertilizer or other additives. Second, cover crops can encourage pollinators to a field which can increase crop yields. Third, cover crops retain moisture so that soil is not lost through wind erosion between plantings. Fourth (but not least), cover crops absorb CO2 and thus reduce pollution in the atmosphere bringing Hawaii closer to its clean everygy goals.

For all these reasons, Hawaii needs to encourage our farmers to plant cover crops. I encourage you to support this important bill. Thank you.

Sincerely,

Jan Pappas

Aiea, Hawaii 96701

**SB-2990-SD-1**

Submitted on: 3/17/2022 7:45:04 AM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Ruth Lewis	Individual	Support	Written Testimony Only

Comments:

I agree with HAPA's assessment of the benefits of cover crops and support this measure.

"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. They also prevent nitrogen pollution in water and erosion to the benefit of both the environment and the farmer."

Ruth Lewis

4875 Kikala RD, Kalaheo, HI 96741

808-332-5032

**SB-2990-SD-1**

Submitted on: 3/17/2022 8:12:48 AM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Susan Stayton	Individual	Support	Written Testimony Only

Comments:

Dear Legislators,

I am writing as a Kauai small farmer in SUPPORT of SB2990 SD1.

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. They also prevent nitrogen pollution in water and erosion to the benefit of both the environment and the farmer.

Thanks for your consideration,

Susan

**SB-2990-SD-1**

Submitted on: 3/16/2022 5:29:08 PM

Testimony for AGR on 3/18/2022 9:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Nanea Lo	Individual	Support	Written Testimony Only

Comments:

Hello,

My name is Nanea Lo. I'm born and raised and from this land. I'm currently a Mō'ili'ili resident. I'm writing in support SB2990 SD1.

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. They also prevent nitrogen pollution in water and erosion to the benefit of both the environment and the farmer.

Support SB2990 SD1 too!

me ke aloha 'āina,

Nanea Lo