

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
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**TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE**

BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

**WEDNESDAY, FEBRUARY 5, 2020
1:15 PM
CONFERENCE ROOM 224**

**SENATE BILL NO. 2704
RELATING TO SUSTAINABLE AGRICULTURE**

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 2704 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 the Executive Biennium budget.

We agree with this measure that cover crops and green manure can provide many benefits to various crops grown by agricultural operations. Planting cover crops can further help agricultural producers reduce their 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.

Since local farmers face some of the highest production costs in the country, the goal of this measure to adopt cover crops and green manure as cost-cutting practices with potentially higher yields is desirable.

The Department has one reservation on this bill. On page 3, lines 10 through 13, the measure states the Department shall 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).

Likewise, the collection of data from applicant's farm production for cover crops and green manure before and after receiving a cover crop 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.

SB-2704

Submitted on: 1/29/2020 12:19:08 AM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Alexandra Kahn	Testifying for Surfrider Oahu	Support	No

Comments:

SB-2704

Submitted on: 2/3/2020 11:34:03 AM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jun Shin	Testifying for Young Progressives Demanding Action	Support	No

Comments:

SB-2704

Submitted on: 2/3/2020 12:06:02 PM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Helmut Klauer	Testifying for A'a Li'i Farm	Support	No

Comments:



HAWAI'I CENTER FOR FOOD SAFETY

~~Senate~~ House Committee on Agriculture ~~and the Environment~~

Hawai'i Center for Food Safety **strongly supports**: SSB2704569

Aloha ~~e~~ Chair Gabbard~~Gabbard~~, Vice Chair Ruderman~~Riviere~~, 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.

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~~My name is Keani Rawlins-Fernandez and I am with the Hawaii Center for Food Safety (CFS). CFS is a nationwide public interest, sustainable agriculture nonprofit organization whose mission centers on furthering the public's right to know how their food is produced, through labeling and other means. We have over 850,000 farmer and consumer members across the country, including nearing 10,000 in Hawai'i. On behalf of CFS and our members, I thank you for the opportunity to speak to you today regarding this important bill.~~

Commented [SW1]: still need to chek this #

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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.

~~[Should I say something about being a lawyer, specializing in Environmental Law?]~~

Commented [SW2]: yes that would be useful.

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I am writing in strong support of SB2569-SB2704 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.

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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.

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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,

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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 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.

~~amends the existing make-up of the pesticide advisory committee to better reflect the current economy and current pesticide concerns for the state. SB2569 directs that the committee shall:~~

- ~~—(1) Establish state standards for chronicity to account for low-level continuous exposures;~~
- ~~(2) Evaluate and recommend to the legislature specific changes to the State’s pesticide laws and regulations;~~
- ~~—(3) Revise and expand the Kaua’i agricultural good neighbor program statewide; and~~
- ~~—(4) Establish a comprehensive buffer zone policy for the state.~~

We strongly support SB2704, 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.

~~As the Kauai Joint Fact-Finding Study group (JFFSG) determined, the regulatory framework for pesticides in the state of Hawaii fails to protect the people of our state. The JFFSG’s pivotal report urges the Hawai’i Governor, State lawmakers, and several State agencies to work in collaboration to better protect residents from exposure to harmful chemicals in the air and water, and to improve the monitoring of both pesticides and chronic illnesses associated with pesticide exposure and this advisory committee will help facilitate bridge the divide between people and the agencies that are meant to protect them.~~

~~Very respectfully,
[Signature]~~

~~The people of Hawai'i have the right to decide that the risks associated with the use of toxic pesticides in commercial agriculture are unacceptable, and take action to reduce and prevent the potential negative impacts of such use.~~

~~Thank you for this opportunity to provide testimony, and I am happy to provide further analysis or respond to any follow-up questions from the Committee.~~

Respectfully,



Lauryn Rego
Director, Hawai'i Center for Food Safety

~~Keani Rawlins-Fernandez, J.D.~~
~~Hawaii Center for Food Safety~~

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SIERRA CLUB OF HAWAI'I

SENATE COMMITTEE ON AGRICULTURE

February 5, 2020 1:15 PM Room 224

In **SUPPORT** of **SB2704**: Relating to Sustainable Agriculture

Aloha Chair Gabbard, Vice Chair Ruderman, and members of the committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **supports SB2704**, 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.¹

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.² 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 improve soil health and support local farms

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

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

² https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource_srccl/

conservation practices in EQIP contracts in Hawaii.³ 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 Hawaii 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 SB2704**.

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

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

**LARRY JEFTS FARMS, LLC
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SB2704, Relating to Sustainable Agriculture
Sen AEN Hearing
Wednesday, February 5, 2020
1:15pm
Conference Room 224

Testimony by: Larry Jeffs
Position: Support

Chair Gabbard, Vice Chair Ruderman and Members of the Sen AEN 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.



Board of Directors:

Senate Committee on Agriculture and Environment

Gary L. Hooser
President

Weds, February 5, 2020, 1:15 p.m., Conference Room 224

Hawai'i Alliance for Progressive Action strongly supports: SB 2704

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

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

Kim Coco Iwamoto
Treasurer

I am submitting testimony on behalf of the Hawai'i Alliance for Progressive Action (HAPA) in strong support of SB 2704 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.

Bart E. Dame
Secretary

Paul Achitoff

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]

Laura Harrelson

Kaleikoa Ka'eo

Michael Miranda

Walter Ritte Jr.

Pua Rossi-Fukino

Karen Shishido

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]

Leslie Malulani Shizue Miki

Some farmers in Hawaii are already able to benefit from federal cover crop incentive programs administered by the Natural Resources Conservation Services (NRCS), 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 SB 2704 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>



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February 5, 2020

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON SB 2704
RELATING TO SUSTAINABLE AGRICULTURE

Room 224
1:15 PM

Aloha Chair Gabbard, Vice Chair Ruderman, 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 2704 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.

SB-2704

Submitted on: 2/5/2020 5:53:05 AM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Simon Russell	Testifying for Farm Maui LLC	Support	Yes

Comments:

SB-2704

Submitted on: 2/3/2020 1:21:05 PM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mike Moran	Individual	Support	No

Comments:

SB-2704

Submitted on: 2/4/2020 7:58:18 AM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dr Kimberly Turnbull, DC	Individual	Support	No

Comments:

Cover crops offer multiple benefits and the expense is very small. I support this bill and I hope you will also.

Aloha

From: panther_dave@everyactioncustom.com on behalf of [Dave Kisor](#)
To: [AEN Testimony](#)
Subject: Support SB2704: Support for Incentivizing Heathy Soils
Date: Monday, February 3, 2020 4:06:15 PM

Dear Hawai'i State Senate Agriculture & Environment Committee,

You may be aware of the untenable position we occupy in the middle of the Pacific Ocean. We have grocery stores coming out of our arm pits, but in the event something happened to cut us off from the rest of the world, we would still need to feed ourselves. Remember pig fences while you're at it, because they'll do their best to eat too. Outside of the fence should be a pig plot, so they won't concentrate on getting into the protected farm. They are intelligent creatures.

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

The use of cover crops is an agricultural practice that has been shown to provide all of the above benefits.

Now is the time to invest in the regenerative practices that will shape the future of Hawai'i's food sustainability!

Mahalo!

Sincerely,
Dave Kisor
14 -3444 Tutu Ln Pahoia, HI 96778-8115

SB-2704

Submitted on: 2/4/2020 3:41:07 PM

Testimony for AEN on 2/5/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Marion McHenry	Individual	Support	No

Comments:

This is a wonderful bill that will help our small farmers be more successful and improve the health of our environment by aiding in building healthy soil across our state.

I strongly support this bill.

Sincerely,

Marion McHenry

Kauai

From: gpuppione@evervactioncustom.com on behalf of [Gregory Puppione](#)
To: [AEN Testimony](#)
Subject: Support SB2704: Support for Incentivizing Healthy Soils
Date: Monday, February 3, 2020 11:19:02 AM

Dear Hawai'i State Senate Agriculture & Environment Committee,

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

The use of cover crops is an agricultural practice that has been shown to provide all of the above benefits.

Now is the time to invest in the regenerative practices that will shape the future of Hawai'i's food sustainability!

Mahalo!

Sincerely,
Gregory Puppione
563 Kamoku St # A-5 Honolulu, HI 96826-5245

Multiple Testifier List for SB 2704

Gregory Puppione
John Naylor
Sean Anderson
Bobbi Misiti
Ed Moya
Nalei Kahakalau
ELIEL STARBRIGHT
Helmut Klauer
Tasia Yamamura
Susanne Kiriathy
Marilyn Mick
April Peterson
John Nix
Terry Huth
Debra Nix
Barbara Barry
Zoe Alexander
John Mora
Lionel Ortiz
Mary True
elaine logan
Lisa Martin
Wesley K. Nanamori
Sulara James

Katherine Orr
Katharine Ayers
Michael DeYcaza
Geraldine Tremblay
Cathy Roberts
Jim Cazel
Debra Vitola
Judy Walker
Mark Holland
Jessica Graham
Theresa Thompson
Lorrie Swartz
David Sutton
Elisabeth Iwata
Marlies Lee
Katherine Kane
Michele Nihipali
Julie Sharrer
Terry Akana
Donna Shepherd
Julia Fujioka
Melanie Cahan
Mark Damon
Janice Palma-Glennie