Testimony Presented Before the
Senate Committee on Agriculture and Environment
Friday, February 5, 2021 at 1:00 p.m.
By
Nicholas Comerford, Dean
College of Tropical Agriculture and Human Resources
University of Hawai'i at Mānoa

### SB 337 – 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 testify in <u>support</u> of SB 337 relating to the use of cover crops and green manure. A cover crop is defined as a crop grown for the protection and enrichment of the soil; while green manure is defined as a cover crop that is used to fertilize the soil by either fixing a nutrient like nitrogen (a legume) or being plowed back into the soil.

It has been well established for decades that cover crops provide strong and long-lived benefits to agriculture and environmental quality. A cover crop reduces the amount and speed of runoff. The result is reduced erosion and loss of surface soil. A cover crop increases soil structure through the action of its roots; and thereby can increase water holding capacity. A cover crop, because many have two-thirds of its biomass belowground, can have a strong influence on soil carbon sequestration thereby promoting soil health and storing atmospheric carbon in the soil.

The best use of a cover crop is when it is accompanied by conservation tillage, such as no till or strip till processes. A green manure crop has a potential disadvantage if it is plowed back into the soil, because of the effect that plowing/cultivation has on carbon loss and soil structure destruction.

SB 337 references a CTAHR database for crops that would be eligible under this bill for reimbursement. The website

https://cms.ctahr.hawaii.edu/soap/SOFT/Resources/Sustainable-and-Organic-Topics/cc-gm is a source that would be useful to mention.

The University of Hawai'i (UH) supports the intent of this bill but is aware of the current financial climate of the State of Hawai'i and realizes that state funding is reduced. For the next fiscal biennium, the University of Hawai'i Board of Regents approved a budget request for the University that was flat and did not seek any increased funding to the University. UH defers to the Department of Agriculture on their priorities.

UH suggest that given the role that both of these materials have on protecting soil from erosion and that this is a pilot project, that farming operations which encompass large acreages be given preference. This would allow the maximum benefit for the environment and for improving soil health.

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

FRIDAY, FEBRUARY 5, 2021 1:00 P.M. VIA VIDEOCONFERENCE

### SENATE BILL NO. 337 RELATING TO SUSTAINABLE AGRICULTURE

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 337 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 this measure provided it does not adversely impact the priorities in the Executive 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 and runoff, and reduce crop consumption of irrigation water.

The Department has some concerns and offers the following comments on this measure. One page 3, section (d) line 7, the crop reimbursement is "for up to one hundred per cent of the costs incurred..." The Department has previously administered compost, feed, and pesticide reimbursement programs where the reimbursement amount were set between fifty and seventy-five per cent of the eligible costs incurred. The Department recommends the per cent of the costs incurred for cover crop seeds or green manure reimbursement be consistent with past reimbursement programs. Reimbursement programs are beneficial to the State and are most effective when the farmer has an investment of money, time, and effort in the program's results.



On page 3, section (e) lines 10 through 13, 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 <u>not</u> have the same benefits in different locations due to varied crop, climate, weather, and soil conditions (Pant, et al, 2014).

We suggest amending the language on section (e) lines 10 through 13 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 the 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.

### <u>SB-337</u>

Submitted on: 2/1/2021 8:02:40 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
laurel brier	Testifying for Kauai Climate ACtion Coalition	Support	No

### Comments:

Cover crops are an essential step in regenerative agriculture which is the most promising avenue to sequestering carbon and addressing the Climate Crisis in a substantial way. It reduces the need for fossil fuel based soil amendments, it preserves water and prevents run offs which protects the reefs. And we build healthier soils for healthier food. SB 337 will help farmers invest in a better future for their businesses and serve the community in more holistic way.

### <u>SB-337</u>

Submitted on: 2/1/2021 5:03:36 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Redfeather	Testifying for Ka Ohana O Na Pua	Support	No

### Comments:

This would be a postiive incentive for our farmers to "try" this tried and true soil builder. Hawaii soils need remediation and I would hope that this program has an educational component not just a reimbursement for seed. We have researchers at CTAHR that have focused their work on cover crops and bringing them into this program with an educational focus would deepen and widen the chances that the program would endure.



# Senate Committee on Agriculture and Environment Hawai'i Alliance for Progressive Action (HAPA) <u>Supports</u>: SB 337

Friday, February 5th, 2021 1:00 p.m.

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

HAPA strongly supports SB 337, relating to sustainable agriculture, which would establish a cover crop reimbursement pilot program to provide up to one hundred per cent cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure.

HAPA believes that SB 337 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.

SB 337 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 SB 337 have been successfully implemented in other states and work to incentivize cover crop planting and growth<sup>[1,2]</sup>.

HAPA strongly supports SB 337 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

Submitted on: 2/3/2021 12:15:04 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mulinix	Testifying for Our Revolution Hawaii	Support	No

### Comments:

Aloha Kakou Members of the Agriculture & Environment committee

On behalf of our 7,000 supporters and members statewide, Our Revolution Hawaii strongly supports SB 337.

Malama Pono, Dave Mulinix,

Statewide Community Organizer

Our Revolution Hawaii

Submitted on: 2/4/2021 7:34:38 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Sakala	Testifying for Hawaii Farmers Union United Kona Chapter Board member	Support	No

### Comments:

Aloha Honorable Committee Members,

I write today in full support of Bill SB337. As a farmer, I know the benefit of extra support to help offset the additional effort of implementing regenerative farming practices like cover cropping. This step of helping farmers put carbon and nutrition back in the soil has a multitude of local benefits. The science is very clear at this point this is one of the best ways to build soil health.

Thank you for your consideration and I look forward to hearing SB337 was passed through this committee.

Mahalo,

Steve Sakala



### Re: Support for SB 337

Pesticide Action Network North America is a national & international organization with a mission to end reliance on hazardous pesticides and achieve health, resilience and justice in food and farming. We wish to express strong support of SB 337, which would provide up to one hundred per cent cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure.

According to the United States Department of Agriculture Natural Resources Conservation Service, "soil should always be covered by growing plants, their residues, or a combination of the two." Cover crops provide myriad benefits to soil, farmer, microbial life, and potentially even wildlife:

- Improving soil health and crop yields: Cover crops provide food and cover to soil microorganisms which in turn are critical for growing food in that soil. Cover crops are proven to lead to statistically significant yield increases of the primary crop(s); in fact, 86% of the respondents to the 2017 National Cover Crop Survey agreed or strongly agreed with the statement, "Using cover crops has improved soil health on my farm."
- Reducing fertilizer costs: Some cover crop species fix nitrogen in the soil while others scavenge for existing nitrogen in the soil. (Deep-rooting cover crops gather nitrogen from deep in the soil profile and release the nitrogen in the rooting zone as plants decay.) This helps reduce the need for off-farm inputs and helps the farmer save costs.
- Reducing pesticide reliance and costs: Relatedly, cover crops have been seen to be beneficial in controlling herbicide-resistant weeds, also leading to reduced pesticide and labor costs, and a reduced reliance on off-farm inputs.
- Increased local food production and farm revenues: Some cover crops are themselves food crops and can therefore automatically mean increased local food production and increased farm revenue.
- Help feed wildlife: Some cover crops provide direct food resources to wildlife if managed properly. In addition, earthworms and insects that flourish in cover crop fields are excellent food sources for many bird species.
- Reducing soil erosion: Coverage of the soil provided by cover crops reduces both wind and water erosion.
- Water management: Cover crops can help with water management by taking up large amounts of moisture to help fields dry out, and/or increasing water infiltration and reducing ponding on the soil's surface.

These are just a handful of the many ways that cover crops lead to healthier soil and increased yields. We believe that cover cropping is one strategy that will help meet the goal of doubling local food production. Therefore, we strongly support SB 337.



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

February 5, 2021

# HEARING BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

# TESTIMONY ON SB 337 RELATING TO SUSTAINABLE AGRICULTURE

Via 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 337, which establishes a cover crop reimbursement pilot program to provide up to one hundred percent cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure 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 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 very limited funding.

Thank you for your support of Hawaii agriculture.



February 4, 2021

Hawai'i SEED Supports: SB 337

**Senate Committee on Agriculture and Environment** 

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

We strongly support SB 337, to establish a cover crop reimbursement pilot program providing cost reimbursement to farming operations to help acquire initial seed costs for the best suited variety of cover crops.

We have long advocated that the use of green manure (plant matter) is a benefit in a variety of ways. Besides the benefits of soil nutrients that cover crop root systems create, and the aeration to the soil when the plant matter is incorporated into the area, it also provides a great cost savings to farmers who have been needing costly imported soil amendments.

A pilot program will be a welcome start to acquiring seed collection for subsequent plantings. An investment in initial seeds will provide exponential seed production. Also, over time, the saved seeds will generationally be locally adapted to the area in which they were grown. They will be stronger and more abundant with each planting.

Cover crops are a great part to encouraging fallowing of plots and rotational plantings. They are attractive a great learning opportunity for young student farmers to understand the importance of good soil, which then create an eco-system for food crops that are strong, healthy and more resistant to pests naturally. Once again, the stronger the plants are from good soil, the fewer synthetic inputs need to be purchased from offsite.

Cover crops are also a great way to suppress weeds and lessen soil erosion and run-off. Building organic matter and supporting improving soil fertility is essential as we transition towards a return to the traditional indigenous farming methods, and strive towards a local food economy.

Cover crops are successfully used worldwide, and Bill SB 337 will be very helpful in getting the first crops in the ground. We strongly support this bill and an economy of more regenerative agricultural systems for our finite island lands.

Mahalo, Jeri Di Pietro, President

Submitted on: 2/4/2021 12:24:26 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Hunter Heaivilin	Testifying for Supersistence	Support	No

### Comments:

Aloha Chair Gabbard, Vice Chair Nishihara, and Members of the Committee on Agriculture and Environment,

This bill was created to support farmer adoption of conservation agriculture practices. A review of best management practices utilized by Hawaii farms as a result of conservation planning found cover crops to be among the most common. Analysis also found cover cropping a beneficial practice for adding soil carbon and mitigating climate effects from agriculture. Recent review of cover crop incentives in other states (<a href="https://www.wvik.org/post/more-farmers-are-planting-cover-crops-thanks-state-incentive-programs#stream/0">https://www.wvik.org/post/more-farmers-are-planting-cover-crops-thanks-state-incentive-programs#stream/0</a>) found these programs an effective tool to facilitate adoption of cover cropping by producers. For these reasons I support SB337 and hope that this pilot program will be created to support conservation agriculture and soil health on farms across the islands.

Mahalo for the opportunity to testify.

-Hunter Heaivilin

Submitted on: 2/4/2021 2:18:14 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
brandi corpuz	Testifying for Rooted Kekahi Me Ka Aina	Support	No

### Comments:

Aloha, My name is Brandi Corpuz and I am the Executive Director of Rooted Kekahi Me Ka Aina. We are a community agriculture 501c3 with programs on Maui, Molokai and Oahu. I strongly support SB337 to help farmers and to help our aina recover from 100 plus years of monocropping, contamination and soil erosion. We need cover crops from the top of the mountains to the edge of the ocean. We also need it to be done in a way that uses Hawaiian cultural and ahupuaa knowledge to assure that we aren't introducing new and invasive species to our already unstable ecosystem. I also suggest that first priority for these funds go to small farms and farming programs first. These local small farms are the ones who live in the communities across Hawaii that take the kuleana of this land to heart and will have the most direct impact on our people. Thank you, Brandi Corpuz

<u>SB-337</u> Submitted on: 1/30/2021 6:52:31 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael deYcaza	Individual	Support	No

### Comments:

Good idea. Cover crops cut down on wind and water erosion of the soil. Cover crops decrease the need for imported fertilizer too.

Submitted on: 2/1/2021 10:32:35 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jess Sobocinski	Individual	Support	No

### Comments:

Aloha KÄ• kou,

I strongly support this bill as someone who has a strong interest in regenerative agriculture and natural resource conservation. Soil conservation is a concern both for our farmers and for the health of our streams and marine ecosystems. Cover cropping is an agricultural practice that helps add nutrients to the soil while also increasing soil health and retention in the face of weathering. The benefits for both farmers and the land at-large are immense, but the cost can be prohibitive to some farmers. Providing a reimbursement program to farmers is a good use of funds both in support of local agriculture and as a practice for promoting soil conservation.

Mahalo,

Jess

### <u>SB-337</u>

Submitted on: 2/1/2021 3:26:04 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
autumn ness	Individual	Support	No

### Comments:

I support SB337 and other bills that supports sustainable farming practices.

Cover crops conserve soil and water and prevent runoff impacting nearshore reefs and fisheries. They build organic matter and improve soil health and nutrients and they reduces the need for synthetic fertilizers, saves farmers money in inputs.

This is all vital as we look toward agriculture as a solution to climate change as it sequesters carbon

<u>SB-337</u> Submitted on: 2/1/2021 4:11:24 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Jennifer Noelani Ahia	Individual	Support	No	

### Comments:

I fully support this bill. Food Security and the health of our ohana is critical, especially at this time with climate change and the current and possible future pandemics. Please pass this bill.

Mahalo,

Jennifer Noelani Ahia

### <u>SB-337</u>

Submitted on: 2/1/2021 4:23:47 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dale Evans	Individual	Support	No

### Comments:

As a graduate of UH-CTAHR (MS, Agronomy and Soil Science) with extensive experience with green manure and cover crops, I wholeheartedly support this bill. Contrary to popular belief, Hawaii soils are, in general, not naturally fertile; they require good management, and cover crops and green manure crops are good ways to contribute to soil productivity for food crops. They improve the water-holding capacity of soils, reduce erosion into coastal waters, and add to and assist the retention of soil nutrients available to crop plants.

<u>SB-337</u> Submitted on: 2/1/2021 4:38:12 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
B.A. McClintock	Individual	Support	No	

### Comments:

Please pass this important bill. Mahalo.

Submitted on: 2/1/2021 4:53:09 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Stayton	Individual	Support	No

### Comments:

Aloah Senators,

I am writing in support of SB 337. Our islands desparately need more sustainable agricultiur adherants. It will improve our food production and preserve our environment. This program will help incent local farmers to adopt these valuable practices.

Please support this bill.

Mahalo,

Susan Stayton

Lawai, HI

<u>SB-337</u> Submitted on: 2/1/2021 5:23:28 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Koohan Paik	Individual	Support	No

Comments:

Please pass this importnat bill.

thank you!

Koohan Paik-Mander

<u>SB-337</u> Submitted on: 2/1/2021 6:25:49 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John NAYLOR	Individual	Support	No

Comments:

Reimburse Farmers! 100%

<u>SB-337</u> Submitted on: 2/1/2021 6:25:56 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
sharon douglas	Individual	Support	No

### Comments:

Cover crops make sustainable and conservation sense, as they prevent run off while ensuring the soil is nourished.

<u>SB-337</u> Submitted on: 2/1/2021 8:25:44 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
jeanne wheeler	Individual	Support	No

### Comments:

Please pass this important bill for eco-healthy local agricultural practices we so need.... Mahalo

Submitted on: 2/1/2021 9:40:37 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Mary Lu Kelley	Individual	Support	No	

Comments:

Aloha,

I support SB337 because it establishes a cover crop reimbursement pilot program to provide up to one hundred per cent cost reimbursement to farming operations in the State for acquiring cover crop seeds or green manure. Establishes a cover crop reimbursement pilot program manager position within the Department of Agriculture to administer the program and requires a report to the Legislature.

This si a god bill because it:

- Supports sustainable farming practices.
- Cover crops conserve soil and water and prevent runoff impacting nearshore reefs and fisheries.
- Cover crops build organic matter and improve soil health and nutrients.
- Reduces the need for synthetic fertilizers, saves farmers money in inputs.
- This kind of cover crop reimbursement program has been successfully implemented in other states.

I live on a small family farm in Lawai and I am in total support for this bill.

Sinceely

Mary Lu Kelley

3644 Lawaiuka Road

Lawai, HI 96765

Submitted on: 2/2/2021 8:57:46 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Meredith Cross	Individual	Support	No

### Comments:

Aloha,

My name is Meredith Cross, a resident of Kapa'a Kaua'i. I personally support this bill in order to allow for our local farming communities to have the resources available to improve the land they farm and all that is affected by thier toils. Please also see the below for additional points of support:

- Supports sustainable farming practices.
- Cover crops conserve soil and water and prevent runoff impacting nearshore reefs and fisheries.
- Cover crops build organic matter and improve soil health and nutrients.
- Reduces the need for synthetic fertilizers, saves farmers money in inputs.
- This kind of cover crop reimbursement program has been successfully implemented in other states.

Mahalo nui loa,

Meredith Cross

Kapa'a, HI 96746

Submitted on: 2/2/2021 9:21:25 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Laura Gray	Individual	Support	No

### Comments:

I support HB 337 because I have seen how effective this type of cover crop program is. It is used in many cases and for all kinds of crops. It reduces the need for plastic mulching, pesticides and herbicides. Also it will save farmers money and make it more profitable to farm. Mahalo, Laura Gray R.N.

<u>SB-337</u> Submitted on: 2/2/2021 9:45:53 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Erin Drayer	Individual	Support	No	Ī

Comments:

I very much support this bill!

Thank you,

Erin

<u>SB-337</u> Submitted on: 2/2/2021 5:34:00 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Shannon Rudolph	Individual	Support	No	

Comments:

Support!

### <u>SB-337</u>

Submitted on: 2/2/2021 8:47:40 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Johanna Stone	Individual	Support	No

### Comments:

I support the bill because we need to invest in our local food systems, the pandemic has highlighted the need to Fix Hawaii's Food System, there are several legislative proposals that provide tangible solutions. A package of good food and agricultural bills will have a cumulative impact in helping to address gaps and missed opportunities in our local food system, while supporting our farmers and food producers.

<u>SB-337</u> Submitted on: 2/2/2021 8:55:32 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kelsey Amos	Individual	Support	No

### Comments:

Cover crops are an important sustainable/regenerative farming practice, which we should reward farmers for doing. I support this bill.

<u>SB-337</u> Submitted on: 2/2/2021 9:14:30 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Laura Michele	Individual	Support	No

### Comments:

I support this smart clean sustainable farming. This only going to enhance and preserve Hawaii and it's self sustainability and beauty and essence.

### <u>SB-337</u>

Submitted on: 2/2/2021 9:35:03 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
john kochiss	Individual	Support	No

### Comments:

To whom it may concern, I am feeling very pleased and appreciative of our politicians for proposing this bill, (337). Cover crops and regenerative agriculture are two of the best practices for building soil and managing climate/ carbon issues. There has been fabulous progress being made and results achieved in other states with these practices. I fervently hope this bill passes. Mahalo for reading my comment. Aloha!

<u>SB-337</u> Submitted on: 2/2/2021 10:04:09 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Thurston	Individual	Support	No

### Comments:

This bill represents a creative and practical approach to the need to move rapidly toward food sustainability. I am very grateful to the senators who drafted it! I support it warmly and enthusiastically and urge the Senate to pass it!

Submitted on: 2/2/2021 11:53:19 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Brian Jahn	Individual	Support	No

### Comments:

Aloha mai kĕ kou,

I am writing to express my support for incentivizing the use of cover crops in Hawai'i. The ecological benefits extend beyond the system in which they are used as many leguminous cover crops fix atmospheric nitrogen and make it easier to enhance soil nutrients without using synthetic chemical fertilizers. The use of synthetic fertilizers damages the long term viability of soils and cover crops can help ensure soil maintains its integrity for generations. These crops can access nutrients from deeper soils via longer root systems, and they create low-residue carbon/nitrogen ratio organic matter that keeps soil healthy (Fageria, Baligar, & Baily, 2005). By creating these incentives we can encourage farmers to participate in reducing the use of harmful inputs and create a more sustainable food system, keeping in line with the [fake] state's integrated sustainability goals. Mahalo for taking the time to read my testimony.

<u>SB-337</u> Submitted on: 2/3/2021 6:52:47 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lorn	Individual	Support	No

# Comments:

Aloha,

As an Island state we need to do everything to enable sustainability. Please vote yes on this vital bill.

Mahalo,

Lorn Douglas, Big Island

<u>SB-337</u> Submitted on: 2/3/2021 7:56:02 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

	Submitted By	Organization	Testifier Position	Present at Hearing	
Ī	James Long	Individual	Support	No	

# Comments:

I support SB337, which will promote sustainable farming practices, help improve our islands soils and help reduce the use of synthetic fertilizers.

Thank you,

James Long

Submitted on: 2/3/2021 9:24:40 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Nathan Leo Braulick	Individual	Support	No	

### Comments:

Dear Members of the Committee:

I come from a long line of family farmers, and I am writing to support SB 337 (Cover Crop Incentives) because it will:

- help support sustainable farming practices.
- conserve soil and water and prevent runoff impacting nearshore reefs and fisheries.
- build organic matter and improve soil health and nutrients.
- reduce the need for synthetic fertilizers and save farmers money in inputs.

I hope you will also support SB 337.

Sincerely,

Nathan Leo Braulick

2333 Kapiolani Blvd., #1604

Honolulu, HI 96826

Submitted on: 2/3/2021 10:35:10 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Boscole	Individual	Support	No

### Comments:

- Supports sustainable farming practices.
- Cover crops conserve soil and water and prevent runoff impacting nearshore reefs and fisheries.
- Cover crops build organic matter and improve soil health and nutrients.
- Reduces the need for synthetic fertilizers, saves farmers money in inputs.
- This kind of cover crop reimbursement program has been successfully implemented in other states.

<u>SB-337</u> Submitted on: 2/3/2021 10:39:44 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Roger Harris	Individual	Support	No

Comments:

Aloha,

Please support and pass this bill.

Mahalo,

Roger Harris

Kapaa

Submitted on: 2/3/2021 11:00:59 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Alani Bagcal	Individual	Support	No

### Comments:

Senator Mike Gabbard, Chair

**Senator Clarence Nishihara, Vice Chair** 

**Senate Committee on Agriculture and Environment** 

Dear Chair Gabbard, Vice-Chair Nishihara, and esteemed members of the committee:

My name is Alani Bagcal and I am writing today in support for SB337.

I highly support this bill that would promote sustainable farming practices as well as reduce the need for synthetic fertilizers which saves farmers money in inputs.

Thank you for the opportunity to testify in support for this bill,

Alani Bagcal

96815

Submitted on: 2/3/2021 11:07:47 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Morgan	Individual	Support	No

### Comments:

Please support the establishment of a crop cover reimbursement pilot program to provide up to 100% cost reiumbursement to farmers in HI. We need support for sustainable farming practices such as crop cover and soil restoration so we can reduce impact of harmfull fertilizers running into ocean water and reefs.

Thank You,

Andrea Morgan

Submitted on: 2/3/2021 11:15:05 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sierra Sonene Donnelly	Individual	Support	No

### Comments:

Please establish a pilot program to support crop cover reimbursement for farmers up to 100%. Of particular importance is soil restoration to prevent excess use and need of fertilizers. These fertilizers are polluting our oceans and reefs. Thank you for your time. - Sonene Donnelly

Submitted on: 2/3/2021 11:23:54 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jared Brewer	Individual	Support	No

### Comments:

Please establish a program for crop cover reimbursement for farmers up to 100%. Specifically, soil restoration to prevent excess use and need of fertilizers. These fertilizers are polluting our oceans and reefs and creating a toxic environment for people to swim and dive. Thank you! -Jared Brewer

Submitted on: 2/3/2021 11:24:27 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kahealani Acosta	Individual	Support	No

### Comments:

The basis of healthy agricultural systems relies on soil health. Incentivizing sustainable agricultural practices ensures the continuity of healthy agricultural ecosystems. Cover crops provide a multitude of benefits to tropical and subtropical soils, most notably protecting the soil with a vegetative cover that prevents erosion.

<u>SB-337</u> Submitted on: 2/3/2021 11:51:03 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Morgan	Individual	Support	No

# Comments:

Please support crop cover pilot program efforts.

# <u>SB-337</u>

Submitted on: 2/3/2021 4:00:54 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ezikio Quintana	Individual	Support	No

### Comments:

I support SB337. I'm born and raised Hawai'i, I'm a farmer and student at UH MÄ• noa. This bill will provide helpful funds and assisance to our farmers, as cover cropping is proven method to increase soil health and reduce erosion. Mitigating the cost barrier to cover cropping will certainly incentivise hesitant farmers to incorporate cover cropping into their farm systems.

Submitted on: 2/3/2021 4:21:59 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jessica dos Santos	Individual	Support	No

### Comments:

After watching the documentary titled, "Kiss the Ground" it is clear that carbon drawdown and healthy soils come from agricultural practices such as the one being proposed in this bill. I am in strong support of efforts to decrease our use of petrochemicals as well.

Submitted on: 2/3/2021 4:23:49 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Will Caron	Individual	Support	No

### Comments:

Aloha committee members,

Please support SB337. This bill supports sustainable farming practices that Hawai'i needs to put into widespread practice if we are to achieve food independence within a sustainable socioeconomic system.

Cover crops conserve soil and water and prevent runoff that impacts nearshore reefs and fisheries, making this an environmental protection and conservation-supporting bill as well. Cover crops build organic matter and improve soil health and nutrients. They also reduce the need for synthetic fertilizers, saving farmers money and avoiding the inherent risk to public health that comes with pesticide use.

This kind of cover crop reimbursement program has been successfully implemented in other states, and I believe Hawai'i should follow suit. I hope you will agree and pass this bill out of committee!

Mahalo for the opportunity to testify,

<u>SB-337</u> Submitted on: 2/3/2021 4:30:10 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Ken Stover	Individual	Support	No	

# Comments:

Whatever we can do to encourage sustainable agriculture.

Mahalo

<u>SB-337</u> Submitted on: 2/3/2021 4:54:11 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sharron Gonzalez	Individual	Support	No

### Comments:

I support this bill as it creates a cover crop reimbursement program to support healthy soils and food systems. It also reduces the need for synthetic fertilizers.

# <u>SB-337</u>

Submitted on: 2/3/2021 4:54:42 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Julia Dunville	Individual	Support	No

### Comments:

As a gardener, I am well aware of the importance of sustainable soil management practices. Any measure that will help incentivize farmers to take a regenerative approach to growing and soil health is a welcome change in Hawai'i. Utilizing cover crops is a great way to ensure against degradation of soil and helps to limit the need for additional (and costly!) inputs such as fertilizers and soil conditioners. The cost of reimbursement for cover crop is nominal compared to the benefits it will have for our farmers and our land!

<u>SB-337</u> Submitted on: 2/3/2021 4:54:46 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kris Bordessa	Individual	Support	No

### Comments:

Yes, yes! Let's help our farmers use sustainable practices to build soil here! Cover crops are an excellent way to do so, and reimbursing growers for these expenses will encourage them to embrace these natural methods!

<u>SB-337</u> Submitted on: 2/3/2021 4:58:10 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michal Fentin Stover	Individual	Support	No

### Comments:

I support SB337 because it will encourage sustainable agriculture by creating a cover crop reimbursement program that will support healthy soils and food systems and reduce the need for synthetic fertilizers.

**SB-337** Submitted on: 2/3/2021 5:41:24 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Van Wishingrad	Individual	Support	No

### Comments:

I am writing in support of SB337 which creates a cover crop reimbursement program to support healthy soils and healthy food systems and reduces the need for synthetic fertilizers.

<u>SB-337</u> Submitted on: 2/3/2021 5:51:35 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Fern Anuenue Holland	Individual	Support	No

# Comments:

Strong support for this bill! Mahalo Senators.

SB-337 Submitted on: 2/3/2021 6:05:10 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Raelyn Reyno Yeomans	Individual	Support	No

Comments:

Strong support.

<u>SB-337</u> Submitted on: 2/3/2021 6:06:08 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Patricia Blair	Individual	Support	No	

Comments:

Support

<u>SB-337</u> Submitted on: 2/3/2021 6:08:49 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Gannon	Individual	Support	No

# Comments:

I Joan Gannon of West Hawaii ask you to vote yes for SB 337.

Thank you

<u>SB-337</u> Submitted on: 2/3/2021 6:19:02 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Sam Small	Individual	Support	No	

Comments:

support

<u>SB-337</u> Submitted on: 2/3/2021 7:13:49 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Ruta Jordans	Individual	Support	No	

# Comments:

Please support an incentive for cover crops.

<u>SB-337</u> Submitted on: 2/3/2021 7:31:20 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sunny Savage	Individual	Support	No

# Comments:

Top soil continues to blow away here on Maui, when we could be holding it and fertilizing with cover crops. We need this program!

<u>SB-337</u> Submitted on: 2/3/2021 7:40:43 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Kisor	Individual	Support	No

### Comments:

We in Hawai'i need to lessen our dependency on the "outside world" for our food. Those on the continent will whine unfair competition if local produce is sold at a price that locals can afford.

<u>SB-337</u> Submitted on: 2/3/2021 7:44:12 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

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

# Comments:

This bill is an important step to improving the soil health on farms across our state and improving the quality and quantity of crops.

<u>SB-337</u> Submitted on: 2/3/2021 7:47:35 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

	Submitted By	Organization	Testifier Position	Present at Hearing
Ī	April C McLean	Individual	Support	No

# Comments:

Thank you to the Senators that introduced this bill. It shows your committment to the community. It will be remembered at election time.

Submitted on: 2/3/2021 9:00:47 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Carolyn Eaton	Individual	Support	No

### Comments:

Aloha, my name is Carolyn Eaton and I strongly support SB 337. I favor the promotion of best practices which is represented in the reimbursement of farmers for planting cover crops. Healthy soils and food systems are what Hawai'i needs and use of synthetic fertilizers work against these desired goals.

<u>SB-337</u> Submitted on: 2/3/2021 9:37:22 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Greg Puppione	Individual	Support	No

### Comments:

The fewer pesticides and synthetic fertilizers needed to grow food the better. Please support this important legislation. Farmers should be incentivized to take care of our soil.

Submitted on: 2/3/2021 9:40:44 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo	Individual	Support	No

### Comments:

Hello,

My name is Nanea Lo and I'm writing in support of SB337x.

I believe that SB337 is important and will benefit everyone of the Hawaiian Kingdom by:

- Supports sustainable farming practices.
- Cover crops conserve soil and water and prevent runoff impacting nearshore reefs and fisheries.
- Cover crops build organic matter and improve soil health and nutrients.
- Reduces the need for synthetic fertilizers, saves farmers money in inputs.
- This kind of cover crop reimbursement program has been successfully implemented in other states.

Please support this bill.

me ke aloha 'Ä• ina,

Nanea Lo

<u>SB-337</u> Submitted on: 2/3/2021 10:23:53 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack	Individual	Support	No

# Comments:

Support this bill towards healthy soils and healthy food systems - mahalo!

<u>SB-337</u> Submitted on: 2/4/2021 12:11:36 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Regina Peterson	Individual	Support	No

# Comments:

I am in support of this bill

### **SB-337**

Submitted on: 2/4/2021 8:34:58 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By Organizatio		Testifier Position	Present at Hearing No
Mary Lacques	Individual	Support	No

### Comments:

Testimony in strong SUPPORT of SB 337 because in these times of climate change, Hawai'i needs to be enhancing its soils and protecting waterways by mitigating soil erosion with closed loop systems that help eliminate the cost of synthetic inputs.

Cover crops reduce soil erosion because soil coverage provided by these crops reduces both wind and water erosion in addition to increasing water filtration and reduce ponding on the soil's surface while recycling nutrients within the soil.

Cover cropping supports endangered species habitat, and some cover crops provide direct food resources to wildlife if managed properly.

Here is a cover crop factsheet from the USDA:

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

Melissa Barker 6230C Hauiki Road Kapaa, HI 96746

barkerohana@gmail.com

February 3, 2021

Re. Support of SB337

Honorable Committee Members,

I am writing to ask that you please lend your support to SB337 concerning cover crop incentives. This bill is an important step to increasing Hawaii's sustainable farming practices, further conserving water and soil as well as helping to reduce runoff affecting our coastal waters.

Thank you for your consideration and attention.

Sincerely,

Melissa Barker

Man Burken

<u>SB-337</u> Submitted on: 2/4/2021 9:13:55 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By		Organization	Testifier Position	Present at Hearing	
	Mary Whispering Wind	Individual	Support	No	

Comments:

Please, support SB337.

<u>SB-337</u> Submitted on: 2/4/2021 9:32:40 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By Organization		Testifier Position	Present at Hearing	
Brian Murphy	Individual	Support	No	

Comments:

Please, support SB 337.

# SB-337

Submitted on: 2/4/2021 9:52:00 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By Organization		Testifier Position	Present at Hearing
Madolin Wells	Individual	Support	No

### Comments:

Healthy food is essential for healthy people. Healthy soils are essential to produce healthy food. The high cost of medical care is a symptom of how inadequate our food supply is to supporting health. In a true cost-benefit analysis, the real cost of synthetic fertilizers and toxic pesticides, herbicides, and fungicides would vastly outweigh their cost to human health, life, productivity, and happiness. With every passing decade, the dollar amount cost of providing all the man-made compounds used in agriculture becomes higher, because they are not sustainable methods. Please vote Yes on SB337!

### COMMITTEE ON AGRICULTURE AND ENVIRONMENT

February 5, 2021 1 PM

**In SUPPORT of SB 337:** Relating to Sustainable Agriculture

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

On behalf of our agriculture community, I **strongly support** SB 337, to establish 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.

As a local conservation planner serving the island of Oahu's agricultural producers, and as an advanced degree graduate of the UH Manoa with an expertise in soil health and soil carbon, I believe a program to reimburse farming operations installing cover crops is a positive contribution to addressing current concerns in sustainable agriculture.

After years of research with soil health and natural resource management, and years of local professional experience, I have found one of the biggest challenges for making positive changes in land management is creating enough financial incentive. Three of the four core principles of protecting soil as a natural resource are to maintain soil cover (vs bare soil), to maximize biodiversity, and to maintain living roots. Cover crops are an excellent management choice because they achieve all of these goals with one practice. Not only can this practice directly benefit farmers, it benefits surrounding communities by reducing sediment erosion and improving watershed health.

Farmers, ranchers, and land managers have complex jobs to fulfill their independent operation responsibilities. Beyond their own operation, they are now also faced with the expectation of regenerative land stewardship to benefit their surrounding communities and environment. We cannot expect them to navigate the hard work and fund the bill so that we may all benefit from climate resiliency.

I suggest to the committee as an amendment to this draft, the consideration for available reimbursement funds to also cover the scope of equipment required to rent, if not owned. Even with seed reimbursement, many cover crops will not be implemented due to lack of appropriate equipment to terminate the crop, as it is often incomparable to the labor and equipment a farmer has available for a cash crop harvest. This is also true for the application of green manure.

Hamb Indas

Thank you very much for this opportunity to provide testimony in **support of SB 337**.

Mahalo, Hannah Hubanks Oʻahu Conservation Planner

<u>SB-337</u> Submitted on: 2/4/2021 10:57:10 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Polli Oliver	Individual	Support	No	

# Comments:

As a small farmer interestd in sustainable farming practices, I STRONGLY SUPPORT this bill and encourage you to pass it!

Mahalo

SB-337 Submitted on: 2/4/2021 11:47:43 AM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Helmut Klauer	Individual	Support	No

Comments:

I strongly support this bill

<u>SB-337</u> Submitted on: 2/4/2021 1:02:23 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Present at Position Hearing	
Jennifer Milholen	Individual	Support	No

# Comments:

Mahalo for supporting this proven and effective measure for improving Hawai'i's soil vitality and regenerative potential.

**SB-337** 

Submitted on: 2/4/2021 1:05:40 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By	Organization	Testifier Present at Position Hearing	
Hema Kealohanuikaiama Watson	Testifying for Halau Ku Mana Public Charter School	Support	No

Comments:

Testimony in Support of S.B. No. 337

Senator Mike Gabbard, Chair

Senator Clarence K. Nishihara, Vice Chair

**Committee on Agriculture and Environment** 

Halau Ku Mana Public Charter School

2101 Makiki Heights Dr #2520, Honolulu, HI 96822

Aloha mai kakou, my name is Hema Watson and I attend Halau Ku Mana Public Charter School. I would like to voice my support for S.B. No. 337, Relating to Sustainable Agriculture. This bill would help reduce runoff from farms which has aided in the destruction of our reefs and the loss of topsoil. It would also decrease the use of chemical fertilizers which are not effective at promoting a healthy and strong soil ecosystem. Using cover crops and green manure would also put vital nutrients back into the soil and create healthier plants and land.

Currently farmers are using chemical fertilizers to artificially reintroduce nutrients into the soil however that method is not sustainable and shoving sacks of nitrogen into the ground does not cover anywhere near the nutrient requirements in the soil. It also hurts our ocean as those excessive amounts of nitrogen can be swept downstream and adversely impact the ocean ecology. Using more natural methods can retain rainwater and soil, as well as introduce more niche nutrients. I support the passing of S.B. No. 337 and urge the committee to do so as well.

<u>SB-337</u> Submitted on: 2/4/2021 2:21:33 PM

Testimony for AEN on 2/5/2021 1:00:00 PM

Submitted By Organization			Present at Hearing
Meredith Buck	Individual	Support	No

# Comments:

I support SB 337 and the use of cover-crops to improve soil health and ecological resilience.