



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
THIRTY-SECOND LEGISLATURE, 2023**

ON THE FOLLOWING MEASURE:

S.B. NO. 660, RELATING TO AGRICULTURE.

BEFORE THE:

SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

DATE: Friday, February 3, 2023

TIME: 1:30 p.m.

LOCATION: State Capitol, Room 224

TESTIFIER(S): Anne E. Lopez, Attorney General, or
Jodi K. Yi or Bryan C. Yee, Deputy Attorneys General

Chair Gabbard and Members of the Committee:

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

This bill would appropriate money and establish a program to promote healthy soils statewide by, among other things, having the Department of Agriculture "issue awards and other financial incentives to implement farm management practices that contribute to healthy soils," at page 2, lines 3-4, of the bill. These awards and other financial incentives appear to be grants, and the program 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." This bill does not appear to contain sufficient standards for grants of public money. Therefore, we recommend that this bill be amended to insert appropriate standards. Examples of existing statutes that provide standards for agencies to issue grants are part II of chapter 9 and sections 10-17, 210D-11, and 383-128, Hawaii Revised Statutes. Additionally, we have attached draft standards to this testimony as a sample to work from and we are happy to work with you on developing more specific standards.

Thank you for the opportunity to present this testimony.

Testimony of the Department of the Attorney General

Thirty-Second Legislature, 2023

Page 2 of 2

- (1) Any grant shall be used exclusively for the purposes of this program.
- (2) The applicant shall indicate capability to properly use the grant to implement farm management practices that contribute to healthy soils.
- (3) The applicant shall comply with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, disability, or any other characteristic protected under applicable federal or state law.
- (4) The grant shall not be used for purposes of entertainment or perquisites.
- (5) The applicant shall comply with other requirements as the department may prescribe.
- (6) All activities undertaken with funds received shall comply with all applicable federal, state, and county statutes and ordinances.
- (7) The applicant shall indemnify and save harmless the State of Hawaii and its officers, agents, and employees from and against any and all claims arising out of or resulting from activities carried out or projects undertaken with funds provided hereunder, and procure sufficient insurance to provide this indemnification if requested to do so by the department.
- (8) The applicant shall agree to make available to the department all records the applicant may have relating to the grant, to allow state agencies to monitor the applicant's compliance with this section.

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

State of Hawai'i
DEPARTMENT OF AGRICULTURE
KA 'OIHANA MAHI'AI
1428 South King Street
Honolulu, Hawai'i 96814-2512
Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

FRIDAY, FEBRUARY 3, 2023
ROOM 224
1:30 P.M.

SENATE BILL NO. 660
RELATING TO AGRICULTURE

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 660 that requires the Department of Agriculture (Department) to establish a healthy soils program. There is an appropriation of \$500,000 for FY 23-24 and the same amount for FY24-25 to establish the program and the required financial incentives. The Department appreciates the intent of this measure, has concerns, and offers a recommendation.

The fully developed Healthy Soils Program (Program) is expected to implement and manage a system of awards, financial incentives, and educational and technical assistance to farmers to implement selected farm management practices that will achieve improving soil health and building carbon stocks by small farmers, ranchers, and landowners. Notwithstanding the appropriations contained in this measure, the Department does not possess the elements of a science-based soil management and education program and neither the expertise nor other resources to establish what is needed to operate a responsible, transparent, and effective statewide program envisioned in this measure.

This bill does not provide guidance on what public and private collaboration is needed to collect and analyze data and information to establish the necessary baselines and reasonable metrics of achievement that is necessary for the Department to establish standards on which to base preferred farm management practices and educate farmers and landowners who undertake them with awards and financial incentives from the Program.



The Green House Gas Sequestration Task Force (GHGS Task Force) (Section 225P-4) has been in existence since 2018 and is charged with addressing numerous objectives including building healthy soils, sequestering carbon, increasing water-holding capacity, and increasing crop yields. This bill significantly duplicates the outcomes expected from the GHGS Task Force with respect to:

- Identifying agricultural practices to provide greenhouse gas benefits, identifying short-term and long-term benchmarks to indicate how effective these identified agricultural practices have been in reaching the goal;
- Identify criteria to be used in a certification program to measure baseline levels and increases in carbon sequestration, improvements in soil health, and so forth; and
- Identify what incentives, grants, research, and assistance are needed to promote identified agricultural practices.

Conceptually, the Healthy Soils Program as proposed in SB660 makes sense as part of the State's overall effort to increase greenhouse gas sequestration which includes carbon and increase soil health. The Department recommends that consideration be given to improving the capacity of existing coordinating programs such as the Greenhouse Gas Sequestration Task Force to undertake their comprehensive responsibilities which includes soil health and sequestering carbon.

Further, SB660 appears to be duplicative of SB419 that seeks to fund the three-year Hawaii Carbon Smart Land Management Assistant Pilot Program (Act 185, SLH 2022) established in the Department of Land and Natural Resources that has among its responsibilities, the sequestering of greenhouse gases and improving soil health by use of incentive contracts based on to-be established compensation rates.

Thank you for the opportunity to present our testimony.

SB-660

Submitted on: 2/1/2023 9:35:58 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Dave Mulinix	Testifying for Our Revolution Hawaii	Support	Written Testimony Only

Comments:

Aloha Committee Members,

On behalf of Our Revolution Hawaii's 5,000 Members & Supporters statewide, we stand in Strong Support of passage of SB660.

SB660 is important because it requires the Department of Agriculture to establish a Healthy Soils Program that will:

- Create a statewide soil health assessment with a list of practices specific to the State that are most effective in improving soil health and building soil carbon stocks
- Provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils
- Establish standards that apply to the healthy soils program and are based on the findings of the greenhouse gas sequestration task force established relating to minimum levels of soil carbon and water content and required soil health practices
- Subject to available funding, issue awards and other financial incentives to implement farm management practices that contribute to healthy soils

A healthy soils program is a win-win for farmers and the environment, please vote to pass SB660.

Mahalo for your kind attention,

Dave Mulinix, Cofounder & Hawaii State Organizer

Our Revolution Hawaii

SB-660

Submitted on: 2/1/2023 11:29:17 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Maureen Datta	Testifying for Adaptations Inc	Support	Written Testimony Only

Comments:

We urge the legislature to pass SB660 and I testify here in strong support. Our state's agricultural sector is a vital component of our economy, and it is important that we take steps to support and promote sustainable farming practices. By providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, we can ensure that our state's farmland remains fertile, productive, and sustainable for future generations.

The Healthy Soils Program is intended to house multiple incentives, like those for cover crops and compost. This approach is similar to California's Healthy Soils Program which funds demonstration and implementation grants that support myriad conservation agriculture practices.

The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health, as well as incentives for small farmers, ranchers, and landowners to take carbon negative actions, this program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions.

Established in 1979, Adaptations is a certified organic farm in South Kona that grows tree crops, diversified vegetables, herbs and edible flowers. In 1993, Tane and Maureen Datta launched Adaptations Food Hub, the first food hub in the State of Hawai'i. It has become a leading local food distributor serving markets statewide, carrying an average of 450 unique local food products that vary seasonally. The food hub sources from 180 small and medium-sized farms on Hawai'i Island and several producers on Maui. It distributes wholesale to other food hubs, food service, and retail accounts across the state. Adaptations also offers an online community supported agriculture program distributing fresh produce and value-added products directly to 600 households each week with 25 pick up locations on Hawai'i Island.

We urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.



Senate Committee on Agriculture & Environment

Hawai'i Alliance for Progressive Action (HAPA) Supports: SB660

Friday, February 3rd, 2023 1:30 p.m. Conference Room 224

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

HAPA supports SB660 which would create a healthy soils program within the HDOA. This comprehensive bill would provide soil health assessments with a list of practices that are most effective in improving soil health and building soil carbon stocks. Additionally the program would identify mechanisms for incentivizing practices which build soil health and capture carbon.

We support a sound program and plan to build our soil structure, nutrient capacity and biodiversity. These practices prevent soil erosion by wind and water, which can further enhance air and water quality and have cascading positive impacts in our environment.

We understand we must provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils and issue awards and other financial incentives to implement farm management practices that contribute to healthy soils.

Healthy soil is the basis for establishing lasting soil that sustains communities, environmental services, farms, and farmers, for generations. In recent decades we have learned a great deal about the importance of microbial life, and soil biodiversity in over soil "health". As we realize the impacts heavy industrial practices have in depleting our local soil health for over a century, we must move away from the outdated practices of sterilizing lands with pesticides and herbicides and killing the soil microbes and life¹, and instead support the biodiversity of insects and microbes that are beneficial to soil health². Healthy soils support more pest and climate change resistant crops.

In addition to important things like composting, crop rotation, covercropping and other ways that we can increase organic content, we need to be looking at rehabilitation of old and previously cleared and graded soils to restore soil biodiversity along with organic content. A well structured program would include qualified soil biologists that could bring these new scientific understandings about soil ecology into the program.

¹ <https://www.scientificamerican.com/article/pesticides-are-killing-the-worlds-soils/>

² <https://www.emnz.com/article/how-pesticides-affect-soil-microbes>



Soil biodiversity provides fertile ground for advancing global sustainability because it integrates so many challenges including climate regulation, water quality, pollution remediation, food and fiber production, and habitat for organisms aboveground and underwater.³

Healthy soil is by far the most biologically diverse part of Earth. The soil food web includes beetles, springtails, mites, worms, spiders, nematodes, fungi, bacteria, and other organisms. These organisms improve the entry and storage of water, resistance to erosion, plant nutrition, and break down of organic matter. These vital ecosystem services are often forgotten and even destroyed through intensive industrialized agriculture⁴.

HAPA believes that SB660 can help to address a range of important issues we face related to degraded and damaged soils, restore and improve soil biodiversity, while also improving the overall quality of our environment and working to sequester carbon. SB660 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Please support SB660 and healthy soils for Hawai'i.

Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read 'Anne Frederick', written in a cursive style.

Anne Frederick
Executive Director

³ <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/soil-biodiversity>

⁴ https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050947.pdf



IN SUPPORT OF SB660

RELATING TO AGRICULTURE

Department of Agriculture; Healthy Soils Program; Carbon Sequestration; Appropriation

Aloha Chair, and Esteemed Committee Members,

The Kona Coffee Farmers Association stands in strong support of SB660. The KCFA represent over 170 farms and agribusinesses in the Kona districts and our mission is to protect the economic interests of our growers.

Healthy soils are the baseline requirement for on-farm success and a foundation for sustainable agribusinesses. We cannot increase our food independence if we do not understand and protect our soil ecosystems. Each island presents unique challenges to maintaining and improving soil health.

Empowering the Department of Agriculture to establish a Healthy Soils program is a necessary first step in bringing Hawaii in line with cutting-edge agriculture states such as California, New Mexico and Washington. Educating and incentivizing stakeholders to protect our soil and better sequester carbon will improve crop yields, boost incomes, reduce diseases, and provide an added buffer for our reef ecosystems.

Thank you for considering this bill. Your attention makes a difference in the lives of hundreds of farmers.

Mahalo nui loa!

A handwritten signature in black ink, appearing to read "Suzanne Shriner". The signature is fluid and cursive.

Suzanne Shriner
President

SB-660

Submitted on: 2/1/2023 9:00:26 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Testifying for Kauai Climate Action Coalition	Support	Written Testimony Only

Comments:

Let's do it again. An excellent bill to reduce chemical use, sequester carbon, improve water retention, reduce erosion to protect our oceans, support our local farmers, and move toward food sovereignty. Pass the Bill



Food+ Policy Internship 2022

food@purplemaia.org

2 February 2023

To: Chair Mike Gabbard, Vice Chair Herbert Richards, and the Senate Committee on Agriculture and Environment

Re: SB660, RELATING TO AGRICULTURE

I, Kahealani Acosta, testify **IN SUPPORT** of **SB660**, relating to agriculture.

Hawai'i is positioned as a model ecosystem, especially for having 10 of the 12 soils of the world -- all of which originate from one basaltic, parent source. Soil health, or the capacity for soil to function, is critical for human survival [1]. Soil can be considered as a living organism and requires active nurturing and protection to secure and ensure resources for future generations. Soil health is defined by the balance of chemical, physical, and biological properties [2]. Maintaining these properties, and remediation of degraded soils, is a key strategy towards ecological restoration, positive environmental impact, and addressing soil as an endowment to future generations of the Hawaiian people [3]. In order to reach Hawai'i's state goals of doubling food production, we as an island community must prioritize the health and abundance of our soils.

As a budding farmer, and advocate for sustainable and resilient food systems, I urge the committee to pass SB660. On behalf of the Hawai'i Food+ Policy Internship, I would like to thank Chair Gabbard, Vice Chair Richards, and members of the Senate Committee on Agriculture and Environment, for considering the comments made herein.

Me ka mahalo nui (with deep gratitude),
Kahealani & the Food+ Interns
#fixourfoodsystem

The Food+ Policy internship develops student advocates who learn work skills while increasing civic engagement to become emerging leaders. We focus on good food systems policy because we see the importance and potential of the food system in combating climate change and increasing the health, equity, and resiliency of Hawai'i communities.

In 2022, the cohort of interns are undergrads and graduate students from throughout the UH System. They are a mix of traditional and nontraditional students, including parents and veterans, who have backgrounds in education, farming, and Hawaiian culture.

References

[1] <http://soilhealth.cals.cornell.edu>

[2] <https://soilhealthhawaii.org/what-is-soil-health/>

[3] Enos, Kameula. (2018). Director of Indigenous Innovations, University of Hawai'i at Mānoa. Personal Communication. Interview for OHA's Conceptual Master Plan for 511-acre property in Wahiawā.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

USDA United States Department of Agriculture

unlock the secrets in the soil

www.nrcs.usda.gov

"We know more about the movement of celestial bodies than about the soil underfoot."
-Leonardo da Vinci

science of soil

Living in the soil are plant roots, bacteria, fungi, protozoa, algae, mites, nematodes, worms, ants, maggots, insects and grubs, and larger animals.

soil is made of about **45% minerals**, **25% water**, **25% air**, and **5% organic matter**.

what's underneath

Healthy soil has amazing water-retention capacity. Every **1%** increase in organic matter results in as much as **25,000** gal of available soil water per acre.

One teaspoon of healthy soil contains **100 million-1 billion** individual bacteria.

All of the soil microbes in **1 ac/ft** of soil weigh more than **2 cows**.

Earthworm populations consume **2 tons** of dry matter per acre per year, partly digesting and mixing it with soil.

what it does

Healthy soil is key to feeding **9 billion** people by **2050**.

Sources: Components of soil: The Nature & Properties of Soils page 17; (Nyle Brady, Roy R. Raper) | Water holding capacity: Kansas State Extension Agronomy & Soils, Number 357, July 6, 2013 | Bacteria in a teaspoon: Soil Biology Primer page c-1; (Cecile Leggett, Andrew R. Moldenke, Carol E. Conrad) | Microbes weight: The Nature & Properties of Soils page 453 | Earthworm population consumption: Earthworms & Farm Soil, publication by Spencer Dawson, Assoc. Prof. of Soil Management and Richard Sheiwever, Assoc. Prof. Environmental Soil Science | Feeding people: The United Nations | USDA is an equal opportunity provider and employer.



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 1, 2023

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON SB 660
RELATING TO AGRICULTURE

Conference Room 224 & Videoconference
1:00 PM

Aloha Chair Gabbard, Vice-Chairs Richards, and Members of the Committees:

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 660, which requires the Department of Agriculture to establish a Healthy Soils Program.

HFB strongly supports 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. This is another mechanism that can help locally produced goods compete with imported products, strengthening our local economy.

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



Officers

Kaipo Kekona
State President

Anabella Bruch
Vice-President

Maureen Datta
Secretary

Reba Lopez
Treasurer

Chapter Presidents

Madeline Ross
Kohala, Hawaii

Odysseus Yacalis
East Hawaii

Puna, Hawaii

Andrea Drayer
Ka'u, Hawaii

Chantal Chung
Kona, Hawaii

Fawn Helekahi-Burns
Hana, Maui

Reba Lopez
Haleakala, Maui

Kaiea Medeiros
Mauna Kahalawai,
Maui

Kaipo Kekona
Lahaina, Maui

Rufina Kaauwai
Molokai

Negus Manna
Lana'i

Brynn Foster
North Shore, O'ahu

Christian Zuckerman
Wai'anae, O'ahu

Ted Radovich
Waimanalo, O'ahu

Vincent Kimura
Honolulu, O'ahu

Ray Maki
Kauai

Aloha Chair Gabbard, Vice Chair Richards, and Members of the Senate Agriculture and Environment 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 SB660.**

Our state's agricultural sector is a vital component of our economy, and it is important that we take steps to support and promote sustainable farming practices. By providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, we can ensure that our state's farmland remains fertile, productive, and sustainable for future generations.

The Healthy Soils Program is intended to house multiple incentives, like those for cover crops and compost. This approach is similar to California and New Mexico Healthy Soils Programs which fund demonstration and implementation grants that support myriad conservation agriculture practices.

The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health, as well as incentives for small farmers, ranchers, and landowners to take carbon negative actions, this program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions. We urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.

Based on testimony from the 2022 legislative session, HFUU offers updated bill language for consideration on the pages below.

Mahalo for the opportunity to testify.

Kaipo Kekona, President HFUU/HFUF

SECTION 2. Chapter 141, Hawaii Revised Statutes, is amended by adding a new section to part I to be appropriately designated and to read as follows:

"§141- Healthy soils program; established. (a)

The department of agriculture shall establish a healthy soils program. The healthy soils program shall:

(1) Create a healthy soil assessment and education program

(2) Provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils, and

(3) operate the healthy soil grants program which shall be funded by the state, with the amount of funding available each year determined by the state legislature;

(4) Administer existing financial incentives to implement farm management practices that contribute to healthy soils, including §141-16 Compost Reimbursement Program and the Cover Crop Reimbursement Pilot program established by Act 312, SLH 2022.

(5) Establish other programs to accomplish the purposes of the Healthy Soils Program Act based on the based on the findings of the greenhouse gas sequestration task force established pursuant to section 225P-4.

(b) In administering the healthy soil assessment and education program, the department shall:

(1) work through technical assistance providers or eligible entities to:

(a) encourage farmers and ranchers and land managers to undertake voluntary soil health measurements;

(b) raise awareness about desirable soil health characteristics;

(c) facilitate on-site, producer-led workshops and training sessions to promote and engender soil health stewardship; and

(d) complete a baseline soil health assessment by testing the organic matter, water infiltration rate, microbiology and aggregate stability of soils, in addition to analyzing phospholipids and monitoring soil cover;

(2) establish a statewide network of champions to promote soil health stewardship, offer guidance to producers and land managers and encourage teamwork;

(3) create a program to provide ongoing training in soil health stewardship and workshop facilitation for champions and eligible entities;

(4) in collaboration with technical assistance providers, sponsor soil health workshops and training sessions at research centers and learning sites throughout the state; and

(5) educate students and the general public about the importance of soil health stewardship.

(c) In administering the healthy soil grant program, the department shall:

(1) award grants to eligible entities to provide technical assistance to producers and land managers in advancing soil health principles and implementing supported methods;

(2) award grants as financial assistance to eligible farmers, ranchers, and other land managers who implement soil health practices on their lands.

(3) develop a user-friendly grant program application and application and reporting processes;

(4) develop criteria for the award of grants; provided that grants shall be awarded equitably and priority may be given to eligible entities serving young producers, veterans, small farms or ranches or for projects that benefit economically or socially disadvantaged communities; and

(5) ensure that grant funds are only used to advance soil health and soil health stewardship.

(d) The department shall encourage producer, land manager, landowner and interagency collaboration in the management of healthy soils and shall:

(1) work with technical assistance providers to advance soil health stewardship across private, state, and federal land jurisdictions by fostering collaboration among producers, land managers and landowners; and

(2) conduct outreach to producers and land managers to promote the program and other federal, state or local grant opportunities that support and promote healthy soils.

(e) The department of agriculture shall submit a report detailing the status and progress of the healthy soils program, including the number of grants awarded, the types of soil health practices being implemented, and the benefits to soil health and agricultural productivity, to the legislature no later than twenty days prior to the convening of each regular session."

SB-660

Submitted on: 2/2/2023 3:22:00 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Tara Waller	Testifying for Ho'ola Farms, 501(c)(3)	Support	Written Testimony Only

Comments:

Our state's agricultural sector is a vital component of our economy, and it is important that we take steps to support and promote sustainable farming practices. By providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, we can ensure that our state's farmland remains fertile, productive, and sustainable for future generations.



To: The Senate Committee on Agriculture and Environment (AEN)
From: Sherry Pollack, Co-Founder, 350Hawaii.org
Date: Friday, February 3, 2023, 1:30 pm

In strong support of SB660

Aloha Chair Gabbard, Vice Chair Richards, III, and AEN Committee members;

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **strongly supports SB660** that would require the Department of Agriculture to establish a Healthy Soils Program. This bill would incentivize regenerative farming, ranching, and land management practices that improve soil health and sequester carbon, as well as educating farmers and providing technical assistance to achieve these goals.

Supporting carbon sequestration efforts such as those delineated in this Healthy Soils Program is a win-win for the climate and local food production. To address the climate crisis, we need to move forward on efforts such as those described in SB660, and we need to do them in earnest.

Mahalo for the opportunity to testify in **strong support** of this important legislation.
Sherry Pollack
Co-Founder, 350Hawaii.org

SB-660

Submitted on: 2/1/2023 9:34:23 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jeannette Gurung	Testifying for Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN)	Support	Written Testimony Only

Comments:

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Jeannette Gurung, Executive Director, Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN), Kailua Kona, HI

SB-660

Submitted on: 2/1/2023 9:44:53 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Vince Kana`i Dodge	Testifying for `Ai Pohaku	Support	Written Testimony Only

Comments:

Aloha Kakou!

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

Over 100 years of plantation agriculture, heavy use of herbicides and pesticides as well as tiling black plastic weed barrier into the soil (Dole/Delmonte) has resulted in depleted damage soil.

It's pretty straightforward- healthy soil is full of healthy microbes and they make healthy food.

Hawaii's soils need help.

SB660 is a good start.

Please give SB6600 your full support.

Aloha Nui!

Vince Kana'i Dodge

SB-660

Submitted on: 2/2/2023 12:51:40 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
candis thomas	Testifying for Puamana Gardens	Support	Written Testimony Only

Comments:

I support this bill for the maintenance of healthy soil. This is imperative for the survival of our island and the ability to produce food and therefore sustain human life. The soil health of the planet is of utmost importance.

SB-660

Submitted on: 2/2/2023 7:06:09 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Timothy Clark	Testifying for sunshine farms llc	Support	Written Testimony Only

Comments:

As a small farm we support this bill. Healthy soil is needed and farmers need help to keep food production up. Mahalo

SB-660

Submitted on: 2/1/2023 12:02:31 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Kaiea Medeiros	Testifying for Kalonize	Support	Written Testimony Only

Comments:

If the government hasn't been made aware yet our entire existence as human beings depends on how we mālama and care for our top 8 inches of soil. All of our food, medicines, and housing materials grow and thrive in our top soil. If we continue to poison our top soil we might as well cut our own throats. We put aloha into our soil we will thrive for generations. Simple as that.

SB-660

Submitted on: 2/1/2023 5:19:38 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jacqueline Wikum	Testifying for Pohaku Farm	Support	Written Testimony Only

Comments:

Strong support for this bill! As a coffee and macadamia nut grower, soil is my most important asset.

SB-660

Submitted on: 2/2/2023 10:31:57 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Colehour Bondera	Testifying for Kanalani Ohana Farm	Support	Written Testimony Only

Comments:

Aloha Chair and Committee Members:

Please accept my full support for requiring the HDOA to have a Soils Program as part of their whole.

Agriculture does not exist without soils, and we must ensure that plant and human and environmental health are all supported with a Hawaii HDOA Program which recognizes and ensure that healthy soil is the starting point for healthy agriculture which can be sustained.

Hawaii does not need to be importing inputs to make for healthy soils, and HDOA must ensure that it is not an opportunity to require soil inputs to be imported to Hawaii, but instead can and should be about what Hawaii has done for centuries in terms of natural cycles of the needed inputs here from home, including such components as fish wastes from that industry, as but one example.

As a second generation certified organic farmer of diversified crops, it is critical to myself and my family, neighbors, friends and broader community that we all work together and I will be asking HDOA upon passage of this legislation to cite at least one Soil Program staff member in Kona, where such a concentration of Hawaii farms exists and where soil capacity and health have not received their necessary support from HDOA or CTAHR in at least the past 20 or more years.

Please support and fund this important and missing component of Hawaiis' capacity to feed itself.

Yours,

Colehour Bondera

KANALANI OHANA FARM



Environmental Caucus of
The Democratic Party of Hawai'i

Energy & Climate Action Committee Agriculture and Food Security Committee

Friday, February 3, 2023, 1:30 m

Senate Committee on Agriculture and Environment

SENATE BILL 660 – RELATING TO AGRICULTURE

Position: Strong Support

Me ke Aloha, Chair Gabbard, Vice-Chair Richards, and members of the Senate Committee on Agriculture and Environment:

SB660 establishes a healthy soils program in the Department of Agriculture, to perform a statewide soil needs assessment, gather information and resources identifying practices promoting soil health for agricultural productivity as well as atmospheric carbon sequestration, develop technical assistance for local farmers to promote healthy soils, and provide rewards for healthy soil performance.

The Energy & Climate Action Committee and the Agriculture and Food Security Committee both enthusiastically support the intent and the future prospects of this bill, as long overdue for cultivating resources and expertise within the Department of Agriculture, for implementing work produced by the Greenhouse Gas Sequestration Task Force, and for establishing a baseline of preferred agricultural practices after years of plantation agriculture and “Green Revolution” agriculture have depleted soils; depleted food nutritional value; contributed to topsoil loss, erosion, and nearshore water contamination and habitat damage; and compromised carbon sequestration performed by healthy soils.

Our Committees jointly look forward to the demonstration of the values of healthy soils sufficient to require these practices in the future as our best hedge against climate damage and toward food security. While these practices are not identified in this bill, an abundance of research and practice around the world provide a rich resource for this new program. Hawaii has every global biome for growing food stuffs, but our soils and climate are unique from place to place, and this program opens a rich vein of experimentation and practice for the future.

Our Committees urge the Legislature to provide necessary funds for new positions at the Department to adequately pursue this ambitious and necessary program to bring us into the 21st Century.

Mahalo for the opportunity to address this matter.

/s/ Charley Ice & Ted Bohlen, Co-Chairs, Energy and Climate Action Committee

Charley Ice, Acting Chair, Agriculture and Food Security Committee

Environmental Caucus of the Democratic Party



**Testimony to Senate Committee on Agriculture and Environment
Comments and Support for SB 660**

Dear Chair Gabbard, Vice Chair Richards, and members of the committee,

My name is Autumn Ness, and I am the Director of the Hawai'i Organic Land Management Program of Beyond Pesticides. Beyond Pesticides is a national organization that seeks to protect air, water, land and food for future generations by moving into a future that doesn't depend on toxic synthetic pesticides and fertilizers.

Beyond Pesticides' Hawai'i Program is a completely locally funded and led program that forges ties with local landscape and agriculture professionals to successfully convert acreage into organic management, through education, partnerships, funding and systemic support. We work with and on behalf of farmers, hotel/resort landscapers, and policy makers to build systems that support a large-scale increase in organic practices, because organic land management is the solution for a cascade of environmental and human health crises that we face today.

First, thank you for introducing and hearing a bill focused on the importance of healthy soils. **As the state continues to focus on increased food production and food security, the type of farming that produces that food must also be central to the conversation.** The basis of sustainable, organic farm systems is healthy soil. Soils that are depleted require the increased use of synthetic pesticides and fertilizers, which cause a myriad of environmental and health issues.

Due to RUP data reporting requirements included in Act 45 (2018), we know that over 215,000 pounds of Restricted Use Pesticides were used in the small area that is Central and North Shore O'ahu, in 2019 alone. When that data was made public, representatives from University of Hawai'i, Dole, Sugarland Farms and the Department of Agriculture were quoted in a Civil Beat article defending this as necessary and acceptable. With all due respect, they are wrong.

We often hear from conventional farmers that going organic would be more expensive than conventional. That is only true because of the hidden subsidies in all aspects of conventional farming. There are numerous studies that show organic farming to be cost comparable, if not less expensive on the production side, especially when one considers the hidden subsidies that go into synthetic inputs and conventional commodity crops.

In one 30-year study, Rodale Institute research shows that organic system operation:

- cost is significantly lower than conventional management
- produces 30% higher yields during times of extreme weather
- matches conventional yields for cash crops, such as corn and soybean

I live in the Moku O Kula Kai (Kihei) in South Maui, which is notorious lately for the mud and flood water that comes off the slopes of Haleakalā during big rain events. From personal experience, the farms upcountry that focus on soil health consistently retain water during these storms and do not send soil and flood waters barreling down to my neighborhood in the way that depleted lands do. From one of those regenerative farmers I checked on after the storm last week: “We are super soggy but our farm more or less absorbed 1 million gallons of water without incident. Kind of mind boggling.”

Another example of how healthy soils are the solution to so many problems we face.

I could share here some of the plethora of studies that show just how problematic it is that we continue to rely on synthetic pesticides and fertilizers the way we do, but I'd like to keep this testimony on topic and solutions-based.

My point is this: we *can* feed ourselves without toxic, petroleum based pesticides and fertilizers. **Food security can no longer be defined as “food production at all costs, even at the expense of public and environmental health.”** It is not sustainable, nor just, that the place on O’ahu that produces the most food also produces the most poison. We owe it to our kids and our island ecosystems to do better, and all of that starts with healthy soil.

To that end, Beyond Pesticides supports SB660, and asks that, while this body still has authority over the direction this important program takes, the committee considers adding a section that further defines healthy soils and some specific benchmarks, in addition to the Greenhouse Gas Carbon Sequestration Task Force recommendations. This will allow the build-out of the Healthy Soils Program to hit the ground running with some direction while also waiting for the task force recommendations.

Healthy, productive soils rely on systemic management practices that are not compatible with petrochemical synthetic fertilizers, so we recommend the following or similar language:

Establish standards that phase out the use of petrochemical synthetic fertilizers over the period of (5) (10) years. During the ____ year phase-out period, the Department of Agriculture shall provide assistance in a holistic approach to land management that integrates cultural, biological, and mechanical practices, which cycle nutrients, promotes ecological balance, and conserves biodiversity.

At the very least, we encourage the addition of *some* language that requires DOA to set standards for soil health to include:

the importance of a holistic approach to land management that integrates cultural, biological, and mechanical practices, which cycle nutrients, promotes ecological balance, and conserves biodiversity.

Additionally, I'm not sure if this bill is the place to add this, but it may be beneficial to **add language encouraging the DOA to explore funding and support resources available through the Organic Transition Act.** Nationally, there is increasing funding and support to convert large amounts of acreage into organic practices through federally funded programs because the health of our soils is such an important factor in the health of our people, environment and the climate.

Mahalo again for discussing this important topic,

Autumn Ness
Director, Hawai'i Organic Land Management Program
Beyond Pesticides

SB-660

Submitted on: 2/2/2023 12:57:18 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Nathaniel Myers	Testifying for Waihunahuna Foundation	Support	Written Testimony Only

Comments:

Aloha,

Waihunahuna Foundation, a 501(c)3 nonprofit land & watershed restoration project on the North Shore of Kaua'i, supports SB660. One of the principal methods that we perform our land restoration work is through regenerative agriculture. For example, we practice traditional Hawaiian and Polynesian agroforestry, which builds healthy soil by growing trees, while simultaneously providing nourishing local food for our community. We support SB660 to give more farmers guidance on regenerative practices that encourage soil health, specific to our unique climate here in Hawai'i nei.

Mahalo,

Nathan Myers, Director

Waihunahuna Foundation

SB-660

Submitted on: 2/2/2023 1:16:24 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Gabriel Monaghan	Testifying for Ho'olono Natural Remedies	Support	Written Testimony Only

Comments:

Incentives for healthy soil will encourage farmers to Malama Aina and care for the land.

SB-660

Submitted on: 1/31/2023 2:43:42 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
B.A. McClintock	Individual	Support	Written Testimony Only

Comments:

Healthy soil = Healthy people. Please support this important bill.

SB-660

Submitted on: 1/31/2023 3:39:06 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Virginia Tincher	Individual	Support	Written Testimony Only

Comments:

Chair Gabbard, Vice Chair Richards and Committee Members,

Thank you Senator Gabbard for introducing SB660 about Healthy Soils. I am in strong support.

SB660 is a win-win. A win for farmers who, according to studies, will increase yields and soil resiliency. A win for the climate through greater and longer lasting absorption of carbon.

At this point in the history of land over and inappropriate use and climate change we are at a point where change is necessary. I've watched farm webinars and read about soil health enough to know that farmers want healthier soil but it takes time, training and money and they have a little of those. A Healthy Soils program in Hawaii along with Federal support from the USDA will help.

The investment in training and money support will more than pay for itself with more locally grown food and reduced emissions.

SB-660

Submitted on: 1/31/2023 9:50:19 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Paul Bernstein	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard and Members of the AEN Committee:

I'm writing in support of SB660. The science is clear on the climate, sustainability, and agricultural benefits from healthy soils. Therefore, for the sake of Hawaii's citizens, we need to make our soils as healthy as possible. In addition, we need to do our part in addressing climate change, which means maintaining and creating soils that are as healthy as possible so we can maximize our ability to sequester carbon. Please pass this bill out of your committee.

Respectfully,

Paul Bernstein

SB-660

Submitted on: 2/1/2023 9:32:40 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
carol lee kamekona	Individual	Support	Written Testimony Only

Comments:

I support this Bill.

SB-660

Submitted on: 2/1/2023 9:51:51 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
John Witeck	Individual	Support	Written Testimony Only

Comments:

Please approve SB660 which would establish an essential and vitally needed healthy soils program. Healthy, fertile soils are the foundation of sustainable food production and a diverse environment and ecosystem.

Much of Hawai'i's land and soils are severely depleted from over a century of growing sugar and pineapple as export crops.. If we are to meet Hawai'i's food security goals, restoring soil health and quality is critical to increasing our local food production and providing a safety network in times of crises and food shortfall.

SB660 is beneficial for our farmers, food consumers and our local environment. I urger your support and approval of this important agricultural measure.

SB-660

Submitted on: 2/1/2023 10:04:46 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Gwen Rodrigues	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Gwen Rodrigues

SB-660

Submitted on: 2/1/2023 10:05:31 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Shannon Lush	Individual	Support	Written Testimony Only

Comments:

Healthy soil is the piko of regenerative agriculture. Without it we lose the ability to take care of ourselves and others. We need to continue to prioritize our soils and teach ourselves and others how to better care for the aina.

SB-660

Submitted on: 2/1/2023 10:19:20 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
vicki levin	Individual	Support	Written Testimony Only

Comments:

Fundamental to healthy agriculture systems is the farming of soil. I'm a soil farmer. Support through the proposed program is essential for small and large farmers alike.

Pls support this bill.

SB-660

Submitted on: 2/1/2023 10:38:19 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
geoffrey saign	Individual	Support	Written Testimony Only

Comments:

please support this!

SB-660

Submitted on: 2/1/2023 10:39:23 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Helmut Klauer	Individual	Support	Written Testimony Only

Comments:

Strongly support

SB-660

Submitted on: 2/1/2023 11:04:59 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Michael Keolamau Tengan	Individual	Support	Written Testimony Only

Comments:

I support SB660 and highly encourage the creation of a Healthy Soils Program by the Department of Agriculture. Our dependency upon importing food into the state places us in a very precarious situation around the quality of the quantity of foods we are consuming.

From food safety issues with its transport to the level of respiration and loss of nutrients, the foods we consume are questionable at best. To truly provide for our people, we must be able to produce the absolute best quality and nutritious fruits, vegetables, and food. This begins and returns to our soil.

Monocrop production has tainted, stripped, and negatively impacted the state of our soil. Having a budget and designation will provide greater agency to truly nourish our community through an agency that also nourish the very land itself. Please consider this as the first step in positively shifting things for Hawai'i, and the health of this place and our people.

SB-660

Submitted on: 2/1/2023 11:05:18 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Pam Murphy	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai‘i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai‘i’s soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai‘i’s food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Pam Murphy, Kilauea, HI

SB-660

Submitted on: 2/1/2023 11:05:40 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Karen Reid	Individual	Support	Written Testimony Only

Comments:

I highly recommend approving the Healthy Soils Program proposed in SB660 as it takes a comprehensive and holistic approach to soil health and sustainability. This program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions. I strongly urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program. Mahalo, Karen

SB-660

Submitted on: 2/1/2023 11:33:34 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Ken Stover	Individual	Support	Written Testimony Only

Comments:

Enriched, organic, toxic free healthy soil is the major priority. Healthy soil a living entity which nourishes, is vital to the ecosystem, regenerates the land after years of abuse caused by industrial farming. Healthy soils are the foundation of sustainable food production, climate readiness and diverse ecosystems.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

SB-660

Submitted on: 2/1/2023 12:02:51 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Barbara Barry	Individual	Support	Written Testimony Only

Comments:

Aloha,

I strongly support SB 660. Healthy soil mean healthy food!

Less pesticide contamination and alive microbiology is good for everyone and everything!

As an organic farmer I know it's all about the soil!

Mahalo,

SB-660

Submitted on: 2/1/2023 12:09:35 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Shannon Rudolph	Individual	Support	Written Testimony Only

Comments:

Support

SB-660

Submitted on: 2/1/2023 12:13:18 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Carolyn Witcover	Individual	Support	Written Testimony Only

Comments:

Please support this important Bill. By providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, we can ensure that our state's farmland remains fertile, productive, and sustainable for future generations.

The Healthy Soils Program is intended to house multiple incentives, like those for cover crops and compost. This approach is similar to California's Healthy Soils Program which funds demonstration and implementation grants that support myriad conservation agriculture practices.

SB-660

Submitted on: 2/1/2023 12:15:34 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
petra zoeller	Individual	Support	Written Testimony Only

Comments:

Aloha,

I am in strong support of SB660. This is an important step on our journey to more food sovereignty.

Thank you for your consideration.

SB-660

Submitted on: 2/1/2023 12:50:37 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
anita Kelleher	Individual	Support	Written Testimony Only

Comments:

I support SB660 and all that it entails. Just makes sense

SB-660

Submitted on: 2/1/2023 12:59:57 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Barbara Best	Individual	Support	Written Testimony Only

Comments:

Soil assessment, farmer education & assistance and standards are necessary

SB-660

Submitted on: 2/1/2023 1:38:22 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Laurie Makaneole	Individual	Support	Written Testimony Only

Comments:

We own and operate a small farm on Kaua'i we need help with improving our farming practices and really support SB 660. In addition we also support allowing ADU on some AG zoned lands. Thank you from Laurie Makaneole

SB-660

Submitted on: 2/1/2023 2:01:08 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Troy	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Troy Schacht, Kapaa

SB-660

Submitted on: 2/1/2023 2:03:37 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Suellen Barton	Individual	Support	Written Testimony Only

Comments:

Strongly support any measures which will improve the health of our soil so we can produce healthier food - am gratified that soil health has finally come to the forefront of Ag here in Hawaii! Yea!!!

SB-660

Submitted on: 2/1/2023 2:06:15 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Kaleopono Norris	Individual	Support	Written Testimony Only

Comments:

We must as a state pay our dues by building up soil carbon reserves that have been steadily depleted over many decades by chemical-heavy industrial agricultural practices. SB660 is (finally!) a step in the right direction.

SB-660

Submitted on: 2/1/2023 2:24:01 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
pamela burrell	Individual	Support	Written Testimony Only

Comments:

Dear honorable Senators,

If we are to meet Hawai‘i’s food security goals, assessing and restoring soil health is critical to increasing local food production, mitigating climate change, food nutrition, bee production, and all natural creatures wellness....etc!!

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

With gratitude,

pamela burrell, Kalihiwai Kauai

SB-660

Submitted on: 2/1/2023 3:18:46 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
tlaloc tokuda	Individual	Support	Written Testimony Only

Comments:

Aloha AEN Chair, Vice Chair and Committee,

I support SB660 because it is concerned with healthy soil teaching farmers how to achieve health soils.

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo fpr your consideration,

tlaloc tokuda

Kailua Kona, HI 96740

SB-660

Submitted on: 2/1/2023 3:53:49 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Shannon McHenry	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Shannon McHenry. Lihue

SB-660

Submitted on: 2/1/2023 4:07:12 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jeannine Johnson	Individual	Support	Written Testimony Only

Comments:

If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production. Please support SB660. Mahalo!

SB-660

Submitted on: 2/1/2023 4:34:34 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
David Shizuma	Individual	Support	Written Testimony Only

Comments:

I am writing in support of SB660.

Our soils play an important role in our environment, in our health, and as stated in the bill, in our efforts to mitigate climate change. If our soils are not healthy, food production will be minimal, runoff and erosion will be plentiful, our air will be filled with dust and debris, and our reefs will be harmed and our fish supply will be affected. If our soils are healthy, we will feed ourselves, we will provide a healthy environment for plants and animals, and we will prosper with healthy living.

This bill, and a healthy soils program, is an important factor in us achieving this.

SB-660

Submitted on: 2/1/2023 4:46:41 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Barbara Burlew	Individual	Support	Written Testimony Only

Comments:

I am in very strong support of SB660. I farm organically on mountainside Kahuku past Turtle Bay and supply a weekly produce bag to over 20 families per week year round. My soil is red clay and requires a lot of compost and amendments. This Soil Health bill SB660 would be of great help to me as I expand my production of local produce to the community and to the farming community as well.

SB-660

Submitted on: 2/1/2023 5:07:58 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Ariana Datta	Individual	Support	Written Testimony Only

Comments:

Healthy soils are vital for Hawai'i's future. Our state's agricultural sector is a vital component of our economy. If passed, this bill will provide farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils. These programs are essential to keep our soil fertile, productive, and sustainable for future generations.

California's Healthy Soils Program structured similarly to this piece of legislation, serves as an example of how these programs can successfully support local farmers, the local economy, and the environment.

I hope the legislature will pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.

Thank you for your time and consideration,

Ariana Datta

SB-660

Submitted on: 2/1/2023 5:12:18 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Sage Loomis	Individual	Support	Written Testimony Only

Comments:

Climate change is an ever growing threat to the Hawaiian Islands, and soil health is a crucial component in the efforts to mitigate the devastation that climate change will cause. Soil health is crucial to maintaining healthy ecosystems, reducing runoff into our oceans, and ensuring that farmers and ranchers are able to produce the food needed to support our population. The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health, as well as incentives for small farmers, ranchers, and landowners to take carbon negative actions, this program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions. We urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.

The Healthy Soils Program is intended to house multiple incentives, like those for cover crops and compost. This approach is similar to California's Healthy Soils Program which funds demonstration and implementation grants that support myriad conservation agriculture practices.

SB-660

Submitted on: 2/1/2023 5:16:22 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
B Anderson	Individual	Support	Written Testimony Only

Comments:

I am a Hawaii Island small farmer of avocados, mac nuts and coffee organically and I support this bill.



**STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809**

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
Chair, House EEP
Chair, House WAL
Chairperson, HTA
Chairperson, DOA
CEO, OHA
Chairperson, DHHL
Director, DBEDT
Director, DOT
Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

**Testimony of
Leah Laramee
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission**

**Before the Senate Committee on
AGRICULTURE AND THE ENVIRONMENT**

**Friday, February 3, 2023
1:30 PM
State Capitol, Via Videoconference, Conference Room 224**

**In support of
Senate Bill 660
RELATING TO AGRICULTURE**

Senate Bill 660 Requires the Department of Agriculture (DOA) to establish a Healthy Soils Program. Appropriates funds. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this measure.**

The State of Hawai'i's commitment to uphold the Paris Climate Accord and progressively move towards zero emissions clean economy by 2045 requires that we actively invest in reducing our emissions and mitigate greenhouse gases (primarily carbon dioxide - CO₂). Regenerative agriculture, forests, wetlands, and our nearshore waters and reefs serve as the State's only carbon sinks, removing carbon from the atmosphere. Soil carbon accounts for over half of the carbon stored in Hawai'i's ecosystems. Investing in healthy soils is an effective way to mitigate our carbon footprint, and can be used along with other conservation tools such as reforestation, to improve our climate.

Healthy soils contribute to both mitigation and adaptation to build resilience in landscapes by enhancing a suite of ecosystem services that are critical to achieving climate readiness. These services include cycling nutrients, increasing yields, helping plants mitigate drought stress, preventing erosion, and increasing water infiltration to aquifers. Managing lands for soil health can protect our waterways and nearshore reef ecosystems in the face of other stressors such as increased ocean temperatures and acidification. Land management practices that focus on building soil health can help increase soil carbon stocks and the associated ecosystem services, landscape resilience in the face of increased weather disruptions, as well as on-farm productivity and profitability. This provides ecological and economic resilience for agricultural communities throughout the islands and increases our food system resilience.

The Commission recognizes that Hawai‘i’s soils are central to the State of Hawai‘i’s ability to achieve a range of sustainability goals, meet carbon neutrality commitments, double local food production, while supporting cultural connection to place and protecting terrestrial and marine ecosystems. The US Climate Alliance Hawai‘i Natural and Working Lands Research Team (Team) collaborates with stakeholders, resource managers, and local communities to support climate smart land stewardship. Crafting equitable, effective, and science-backed policies and programs that enable diverse groups to enact changes on the land that result in GHG sequestration and the protection of natural resources while meeting local food production goals, biodiversity, watershed protection, and social and cultural values is needed to build ecological, social, and food system resiliency in the state.

The Commission recognizes that capacity is a limiting factor at DOA and in addition to the appropriation for this program the Commission respectfully encourages the addition of FTEs positions to conduct the work implementing this program.

Mahalo for the opportunity to testify in support of this measure.

SB-660

Submitted on: 2/1/2023 5:40:13 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Teresa Landreau	Individual	Support	Written Testimony Only

Comments:

This bill for soil improvement is a win win for farmers, consumers, our aina and future generations. So important, please pass this measure and fund it generously.

SB-660

Submitted on: 2/1/2023 5:43:42 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Dennis F Lokmer	Individual	Support	Written Testimony Only

Comments:

I urge strong support for this bill. Hawaii must do all it can to promote a self-sustaining means to feed her people.

SB-660

Submitted on: 2/1/2023 5:47:49 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Raphiell Nolin	Individual	Support	Written Testimony Only

Comments:

I strongly support this bill!

SB-660

Submitted on: 2/1/2023 6:49:43 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Kristina Statler	Individual	Support	Written Testimony Only

Comments:

Definitely in support of SB660

Kriatina Statler

Haiku

SB-660

Submitted on: 2/1/2023 7:11:03 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Charlene K. Rowley	Individual	Support	Written Testimony Only

Comments:

Aloha senate committee,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Charlene Kiana Rowley

'Oma'opio Kula Maui

SB-660

Submitted on: 2/1/2023 7:13:51 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Support	Written Testimony Only

Comments:

Honorable Members,

I respectfully ask that you support SB660 which would create a statewide soil health assessment with a list of practices specific to the State that are most effective in improving soil health and building soil carbon stocks.

Much of Hawaii's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawaii's food security goals, assessing and restoring soil health is critical to increasing local food production.

Thank you for your consideration,

Melissa Barker

Kapaa, HI

SB-660

Submitted on: 2/1/2023 7:32:55 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Lisa DeSantis	Individual	Support	Written Testimony Only

Comments:

Aloha mai kākou,

I strongly support SB660.

Mahalo for your time.

Lisa DeSantis, Waimea, Hawai‘i Island

SB-660

Submitted on: 2/1/2023 7:40:46 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Andrea Nandoskar	Individual	Support	Written Testimony Only

Comments:

Strongly support!

SB-660

Submitted on: 2/1/2023 8:06:26 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Nanea Lo	Individual	Support	Written Testimony Only

Comments:

Hello,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai‘i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai‘i’s soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai‘i’s food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

me ke aloha ‘āina,

Nanea Lo, Mō‘ili‘ili

SB-660

Submitted on: 2/1/2023 8:09:19 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Ruta Jordans	Individual	Support	Written Testimony Only

Comments:

Hawaiian soils desperately need to be improved organically with compost amendments. Please support this bill to improve the nutrition from local agriculture.

SB-660

Submitted on: 2/1/2023 9:13:50 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Franz Weber	Individual	Support	Written Testimony Only

Comments:

I am in favor

SB-660

Submitted on: 2/1/2023 9:15:00 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Judith White	Individual	Support	Written Testimony Only

Comments:

Healthy soil=healthy life. Please pass!

SB-660

Submitted on: 2/2/2023 8:00:10 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Valerie Weiss	Individual	Support	Written Testimony Only

Comments:

I am in strong support of this bill. It is of prime importance that we support Hawaii Ag and healthy soil is the cornerstone of that.

SB-660

Submitted on: 2/2/2023 8:19:45 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Mary Mowdy	Individual	Support	Written Testimony Only

Comments:

Thank you for the opportunity to submit written testimony in support of SB 660.

I hope this bill will be passed and implemented quickly. It has the potential to go a long way toward helping small farms especially have easy access to tools that will help them improve their farming techniques which will make their farms more viable and economical, thus helping to create a stronger circular economy on our islands. Of course, it will also help ensure our islands' food sustainability and self-reliance which seems so very important.

SB-660

Submitted on: 2/2/2023 8:53:09 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
cheryl hendrickson	Individual	Support	Written Testimony Only

Comments:

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo

SB-660

Submitted on: 2/2/2023 9:02:20 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Mina Fardeen	Individual	Support	Written Testimony Only

Comments:

Aloha,

I am writing in support of support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai‘i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

As a UC Berkeley graduate, and Teaching Assistant for the University's introduction to soil science course, I've learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai‘i’s soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai‘i’s food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Mina Fardeen, San Francisco

SB-660

Submitted on: 2/2/2023 9:13:55 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Hiika Jardine	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Hi'iaka Jardine

SB-660

Submitted on: 2/2/2023 9:48:25 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Robert ZUckerman	Individual	Support	Written Testimony Only

Comments:

As an HFUU member, I fully support this bill that will support regenerative farming, soil health, the environment, and the healthy sustainable future of Hawaii.

SB-660

Submitted on: 2/2/2023 9:58:08 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Kuikeokalani Kamakea-Ohelo	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Kū'ike Kamakea-Ohelo,

Aloha 'Āina, Farmer and Friend.

SB-660

Submitted on: 2/2/2023 10:55:03 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jessica Kuzmier	Individual	Oppose	Written Testimony Only

Comments:

I am glad that this bill is coming up for discussion. SB 660 is an essential step in creating a foundation for sustainable agriculture, by focusing on the health of our soils. This bill will create a statewide soil health assessment with a list of practices specific to the State that are most effective in improving soil health and building soil carbon stocks. The health status of our soil is incredibly important, and without good soil the agriculture it yields will be at best meager, and at worst, contribute to the decline of biodiversity and our ecosystem in general.

This bill provides many incentives. It will provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils, establish standards that apply to the healthy soils program, and are based on the findings of the greenhouse gas sequestration task force established relating to minimum levels of soil carbon and water content and required soil health practices. Additionally, subject to available funding, issue awards and other financial incentives to implement farm management practices that contribute to healthy soils.

Please support this bill, so that we can begin the hard work of creating a self-sustaining economy and agriculture. Mahalo.

SB-660

Submitted on: 2/2/2023 11:39:26 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Evern Williams	Individual	Support	Written Testimony Only

Comments:

Please do the right thing and support the passage of SB660. Hawaii needs a healthy soils program to protect and perpetuate healthy soil for our food security.

SB-660

Submitted on: 2/2/2023 11:47:45 AM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
A Kathleen Lee	Individual	Support	Written Testimony Only

Comments:

ALOHA Honorable Senators on the Committee for Agriculture and the Environment,

SB660 requires the Department of Agriculture to establish a Healthy Soils Program. The program will hopefully allow farmers that have shown nutrient-rich are grown in their gardens, that they are able to grow more food per square foot, and that they are using organic means with the least cost involved to achieve these results; to share the means by which they produced these...

We do not need another government dept of folks who are not in the local agricultural community. We affirm that you realize when the administrations of government are enacted in an emergency, our citizens will be fed the lowest level of nutrition based on the current VOAD (Volunteer Organizations Active in Disaster) plans with the EMS & FEMA, I know, I am a member of that organization. This program needs to provide education/training for the public to grow their own food.

You list these as the purpose for the program...I have edited to my perspective:

- ~~Create a statewide soil health assessment~~ (recognize every patch of aina has its own chemistry...testing kits might be a viable option (IF the recipient has come to 2-3 training sessions prior). Agreed, a published list of practices specific to the State that are most effective in improving soil health and building soil carbon stocks should be easily available on a website with geo-specific highlights & a number to call...or maybe the extension service.
- Provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils
- ~~*(Establish standards that apply to the healthy soils program and are based on the findings of the greenhouse gas sequestration)*~~ I DO NOT AGREE with this premise...No gardens I know of would really affect greenhouse gas emissions enough to warrant using our precious dollars on it...WE DO NOT NEED A TASK FORCE. related to minimum levels of soil carbon and water content and required soil health practices
- DO NOT AGREE WITH THIS>>>EITHER PARTICIPANTS ARE INTERESTED IN EATING & PROVIDING GOOD FOOD OR THEY ARE NOT. THIS OPENS THE DOOR FOR MORE CORRUPTION AND THEFT OF TAXPAYERS

MONEY. Subject to available funding, issue ~~awards and other financial incentives~~ to implement farm management practices that contribute to healthy soils.

- Respectfully submitted,
- April Lee & Ohana/Small Hawi Farmer
- PO Box 190705; Hawi, HI 96719
- Island of Hawai'i

SB-660

Submitted on: 2/2/2023 12:04:28 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Mary Lu Kelley	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai'i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai'i's soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai'i's food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo.

SB-660

Submitted on: 2/2/2023 12:08:38 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Sunny Savage	Individual	Support	Written Testimony Only

Comments:

In strong support!

SB-660

Submitted on: 2/2/2023 12:43:00 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Christian Zuckerman	Individual	Support	Written Testimony Only

Comments:

I am in strong support of SB 660. As a farmer, I have been promoting healthy soil practices in my agricultural production systems where ever I can. If Hawaii is serious about increasing its food self sufficiency and about addressing climate change, there needs to be much more support for programs like this. There are a significant number of small family run farming operations in the state and this would be able to provide direct support to their regenerative and soil health practices. It is important when thinking of agriculture in Hawaii to not forget about the small scale producers, they are just as important to a healthy food system as are the larger scale operations.

There is significant research and studies that have been done on the benefits of healthy soil practices ranging from carbon sequestration to higher nutrient density in our foods. Healthy soil practices have been identified as key low hanging steps to be taken to combat the affects of climate change. Having healthy soils creates less run off and erosion, loss of top soil due to winds, creates diversity of species and resiliency in soil structure, and ultimately helps address the effects of global warming.

SB-660

Submitted on: 2/2/2023 12:49:32 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jennifer Milholen	Individual	Support	Written Testimony Only

Comments:

Aloha, Committee Members. I stand in strong support of SB660. It is no exaggeration to say that we live or die on the strength of our soils in the face of the climate crisis, and we need to invest all that we can in their rehabilitation with compost infrastructure, farmer support, and incentives.

"The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health, as well as incentives for small farmers, ranchers, and landowners to take carbon negative actions, this program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions. We urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program." - HFUU

Mahalo for your time and support of SB660

Jennifer Milholen - HFUU & US Composting Council Member

SB-660

Submitted on: 2/2/2023 3:08:51 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Marilyn Mick	Individual	Support	Written Testimony Only

Comments:

Our state's agricultural sector is a vital component of our economy, and it is important that we take steps to support and promote sustainable farming practices. By providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, we can ensure that our state's farmland remains fertile, productive, and sustainable for future generations.

The Healthy Soils Program is intended to house multiple incentives, like those for cover crops and compost. This approach is similar to California's Healthy Soils Program which funds demonstration and implementation grants that support myriad conservation agriculture practices.

The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health, as well as incentives for small farmers, ranchers, and landowners to take carbon negative actions, this program will help ensure that our agricultural sector remains strong and resilient in the face of changing environmental conditions. We urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.

SB-660

Submitted on: 2/2/2023 3:13:29 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Ming Wei Koh	Individual	Support	Written Testimony Only

Comments:

Aloha mai kākou,

Please support SB660 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social well-being in Hawai‘i. Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems.

In recent decades, we have learned a great deal about the importance of microbial life, soil biodiversity, and the capacity for soil to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts while increasing soil productivity for farming.

Much of Hawai‘i’s soils are severely depleted from over a century of industrial agricultural practices. If we are to meet Hawai‘i’s food security goals, assessing and restoring soil health is critical to increasing local food production.

SB660 is a win-win for our farmers and our local environment. Please support this important measure.

Mahalo,

Koh Ming Wei, PhD.

Pahoa, Hawaii

SB-660

Submitted on: 2/2/2023 3:56:24 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Keith Neal	Individual	Support	Written Testimony Only

Comments:

strong support of SB660.

The Healthy Soils Program proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability.

SB-660

Submitted on: 2/2/2023 8:33:22 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Jim Monk	Individual	Support	Written Testimony Only

Comments:

Please pass SB660. This state needs healthy soil and needs our Department of Agriculture to support that matter. We especially need subsidies for fertilizer in the Kona Coffee belt to fight the Coffee Leaf Rust which is working to ruin the coffee industry in Hawaii.

SB-660

Submitted on: 2/2/2023 8:33:58 PM

Testimony for AEN on 2/3/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Rexann Dubiel	Individual	Support	Written Testimony Only

Comments:

I support SB660 wholeheartedly and so should you. It's good for Hawaii.