

ON THE FOLLOWING MEASURE: S.B. NO. 660, S.D. 1, RELATING TO AGRICULTURE.

BEFORE THE:

SENATE COMMITTEE ON WAYS AND MEANS

DATE: Wednesday, February 22, 2023 TIME: 10:00 a.m.LOCATION: State Capitol, Room 211

TESTIFIER(S): WRITTEN TESTIMONY ONLY. (For more information, contact Jodi K. Yi, Deputy Attorney General, at (808-586-1195)

Chair Dela Cruz 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." (Page 2, lines 18-20.) 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.

POSSIBLE STANDARDS FOR THE GRANTS IN THIS BILL

- (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 Hawai'i 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.

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 WAYS AND MEANS

FRIDAY, FEBRUARY 22, 2023 ROOM 221 10:00 AM

SENATE BILL NO. 660 SD1 RELATING TO AGRICULTURE

Chairperson Dela Cruz 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 and offers a comment.

The fully developed Heathy 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 threeyear 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.



STATE OF HAWAI'I

HAWAI'I 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, DTA Chairperson, DCA CEO, OHA Chairperson, DH Director, DBEDT Director, DBEDT Director, DOH Chairperson, DOE Director, C+C DPP Director, Kaua'i DP Director, Kaua'i DP The Adjutant General Manager, CZM

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

Before the Senate Committee on <u>WAYS AND MEANS</u>

Friday, February 22, 2023 <u>10:00 AM</u> <u>State Capitol, Via Videoconference, Conference Room 211</u> <u>AGRICULTURE AND THE ENVIRONMENT</u>

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)** <u>supports</u> 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.

200 Kanoelehua Avenue, # 205, Hilo, HI 96720



February 16, 2023

Aloha Chairman Gabbard, Vice-Chair Richards and Committee members:

The Hawaii Oil Seed Producers (HOSPO), a 501(c)(5) agricultural cooperative seeking to build a vegetable oil industry in Hawaii, supports SB 660 SD1. In a proof-of-concept study, we have about 40 acres of oil palms producing an average of 610 gallons of oil/acre on the Big Island which can benefit from this program.

An industry based on hybrid oil palm orchards integrated with shade tolerant vegetable crops and sheep and cattle as is practiced in some South American and Indonesian palm orchards will provide strong food and oil resilience for the future. Some 40% or more of Hawaii's agricultural lands are available for developing integrated palm orchards. More can be grown on small landholder plots. Oil palms are proven to produce 10-fold the vegetable oil/acre than soybeans do in the American Midwest. Further, the oil can be used in developing new industries and jobs in biofuels, edible oils, bioplastics, biofibers, cosmetics and pharmaceuticals. The wastes can be used in making compost and animal feed or fermented into ethanol. Such a vegetable oil source in Hawaii can build a very sustainable circular bioeconomy in the mid Pacific while reducing shipping costs and imports across a wide range of goods. SB660 SD1 will provide a framework within which a circular bioeconomy can be developed.

The HDOA healthy soils program will improve soil health and soil carbon stocks enabling better water retention and soil microbiome buildup. Use of biocarbon in the soil and carbon storage by oil palms will enable greenhouse gas sequestration that will benefit from this program. Establishing the standards this program will require will provide a guide for what farmers will need to know if they are successfully providing sustainable approaches for soil fertility and ecological balance while promoting biodiversity. HOSPRO welcomea programs incentivizing small farmers, ranchers, and landowners to take carbon negative actions on their respective lands.

Please pass this bill.

With all regard,

William Moekahi Steiner. Ph.D. General Manager, HOSPRO

<u>SB-660-SD-1</u>

Submitted on: 2/18/2023 9:01:14 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

SB-660-SD-1

Submitted on: 2/20/2023 9:40:24 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Scott Crawford	Testifying for Kipahulu Ohana, Inc.	Support	Written Testimony Only

Comments:

I am writing in strong support of the Healthy Soils initiative of this bill. Healthy soils are the basis for a strong and sustainble agricultural economy, and this bill contains several important incentives to help farmers build healthy soils. On behalf of Kipahulu Ohana, Inc., representing taro farmers in East Maui who work to cultivate our own healthy soils, we urge your support for this bill.

SB-660-SD-1

Submitted on: 2/20/2023 9:52:02 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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; 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 years.

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

Yours,

Colehour Bondera

KANALANI OHANA FARM

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 9:55:23 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
John Latkiewicz	Testifying for Capture the Carbon	Support	Written Testimony Only

Comments:

The climate crisis is upon us – a warming climate, epic natural disasters, e., fires, floods, heat waves, extinctions. At this point, any and all action to curb greenhouse emissions in particular and gases .

It is in that spirit that offer my (as the facilitator of Capture the Carbon) testimony on SB660.

Reasons to support SB660: Health soils capture carbon – should be enough said. The healthy soils program shall:

(1) Create a statewide soil health assessment with a list of practices specific to the State and that are most effective in improving soil health and building soil carbon stocks;

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

(3) Establish standards that apply to the healthy soils program and are based on the findings of the greenhouse gas sequestration task force established pursuant to section 225P-4 relating to minimum levels of soil carbon and water content and required soil health practices; and

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

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 10:12:33 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Yoshito L'Hote	Testifying for Aina Ho'okupu o Kilauea	Support	Written Testimony Only

Comments:

More needs to be done to maintain and improve our soils



Environmental Caucus of The Democratic Party of Hawaiʻi

Agriculture & Food Security Committee

Wednesday, February 22, 2023, 10:00 am

Senate Committee on Ways and Means

SENATE BILL 660 – RELATING TO AGRICULTURE

Position: Strong Support with Amendment

Me ke Aloha, Chair DelaCruz, Vice-Chair Keith-Agaran, and members of the Senate Committee on Ways and Means:

SB660 establishes a Healthy Soils Program in the Department of Agriculture.

The Agriculture & Food Security Committee enthusiastically supports this initiative, as it provides for restoring agricultural soils depleted by plantation agriculture and grows support for food farming to serve all of Hawaii's people – not just the high end or tourism. We commend the amending done by the Agriculture and Environment Committee, inserting language to pursue holistic agricultural practices and phase out petrochemical additives that have depleted soil health.

We also highly endorse recommendations by the Hawaii Farmers Union United to provide not only educational assistance but incentives to implement voluntary soil health measurements, facilitate onsite training workshops, and complete a baseline soil health assessment, as well as establish a network of stewardship champions, and to educate the public about healthy soil requirements.

More specifically, the following:

(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.

Our Committee emphasizes the critical need to supply local working families with affordable healthy fresh produce, in the interests of battling rampant diet-related disease, and the important of food security as we face climate disruptions of imported foods, which represent 85-90% of our food supply and provide only 2-3 days supply in the event of such disruption. Whether the disruption affects our normal food source locations or closes our ports due to hurricane, we need to take advantage of Hawaii's phenomenal capacity for self-reliance and even the production of virtually any foodstuff thanks to hosting every food growing biome on the planet right here in Hawaii.

By establishing healthy soils, we initiate the possibilities of expanding affordable fresh produce for a healthy community and empowering value-added products and emergency food supplies for local consumption as well as export. In addition, healthy soils draw down atmospheric greenhouse gases, which is a serious responsibility, as we seem incapable, as yet, of curtailing greenhouse gas emissions.

Mahalo for the opportunity to address this matter. /s/ Charley Ice Acting Chair, Agriculture and Food Security Committee Environmental Caucus of the Democratic Party



Senate Committee on Ways and Means

Hawai'i Alliance for Progressive Action (HAPA) Supports: SB660 SD1

Wednesday, February 22nd, 2023 10:00 a.m. Conference Room 211

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran and Members of the Committee,

HAPA supports SB660 SD1 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.

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

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

The Hawai'i Alliance for Progressive Action (HAPA) is a public non-profit organization under Section 501(c)(3) of the Internal Revenue Code. HAPA's mission is to catalyze community empowerment and systemic change towards valuing 'aina (environment) and people ahead of corporate profit.



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.

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.

HAPA believes that SB660 SD1 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 SD1 is therefore not just important for our local food production agricultural sector but is good for our local environment.

HAPA supports the amendments requested by Hawai'i Farmers Union United (HFUU) based on testimony from the 2022 legislative session (see attached).

Please support SB660 SD1 and healthy soils for Hawai'i.

Thank you for your consideration.

Respectfully,

Anne Frederick Executive Director

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

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

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Proposed Amendments:

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

The Hawai'i Alliance for Progressive Action (HAPA) is a public non-profit organization under Section 501(c)(3) of the Internal Revenue Code. HAPA's mission is to catalyze community empowerment and systemic change towards valuing 'aina (environment) and people ahead of corporate profit.



(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."



Monday February 20, 2023

Hawai'i State Senate COMMITTEE ON WAYS AND MEANS

RE: SUPPORT of SB660 SD1

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and members of the committee,

"Soil is not a resource, it is the source of our life." -Sadhguru.

Please support SB660 SD1 to establish a healthy soils program. Soil is a vital and living ecosystem that provides essential functions for life and 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 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.

SB660 SD1 is a win-win for everyone in Hawai'i. Please support this important measure.

Mahalo for your consideration,

Annalyssah Camacho, co-founder



February 20, 2023

Senator Donovan M. Dela Cruz, Chair Senator Gilbert S.C. Keith-Agaran, Vice Chair Committee on Ways and Means Wednesday, February 22, 2023 10:00 am Via Videoconference



RE: SB660 SD1 Relating to Agriculture (Strong Support)

Dear Chair Dela Cruz, Vice Chair Keith-Agaran & Members of the Committee,

The Chamber of Sustainable Commerce (CSC) testifies in strong support of SB660 SD1, which requires the Department of Agriculture to establish a Healthy Soils Program and appropriates funds to implement this program.

As business owners who believe we can strengthen our economy without hurting workers, consumers, or the environment, we urge this committee to pass SB660 SD1 because it will move us toward greater food security, reduce carbon emissions through sequestration, and improve the stewardship of our land and protect our water. This bill will positively impact economic and physical health of farmers, consumers, and the community that relies on a healthy environment.

This bill demonstrates an impressive understanding of just how foundational healthy soil is to a sustainable economy. It is about time we repair the soil damage left by prior businesses and short-sighted policy makers – from the ground up.

Hawaii Legislative Council Maile Meyer Na Mea Hawaii Honolulu Russel Rudderman Island Naturals Hilo / Kona

Tina Wildberger Kihei Ice Maui Joell Edwards Wainiha Country Market Kauai Kim Coco Iwamoto AQuA Rentals, LLC Honolulu

<u>SB-660-SD-1</u>

Submitted on: 2/20/2023 12:11:58 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha,

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.

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.



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!

um Zoh

Suzanne Shriner President

SB-660-SD-1

Submitted on: 2/20/2023 5:43:43 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Gary Rosenberg	Testifying for The Seeger Institute	Support	Written Testimony Only

Comments:

A conventional agricultural system, and the animal confinement system, which dominate our food system paradigms a feeling before our eyes. We here in Hawaii, have both an opportunity and an obligation to demonstrate an alternative model. A model one more in alignment with long-term planetary well-being, and a holistic outlook acknowledging the interconnectedness of the entire ecosystem. we have many small scale farms here on the island of Hawaii, including my own, who are working tirelessly, and who have been studying regenerative agriculture for many years. By providing us with a support and some assistance, we cannot only serve ourselves and our local communities to provide food sovereignty , but we can also provide a much needed. New story, leading the world into food systems, which are sustainable and in alignment with long-term global well-being.

Officers Kaipo Kekona State President

Anabella Bruch Vice-President

Maureen Datta Secretary

Reba Lopez Treasurer

Chapter Presidents

Madeline Ross Kohala, Hawai'i

Odysseus Yacalis East Hawai'i

Puna, Hawai'i

Andrea Drayer Ka'ū, Hawai'i

Chantal Chung Kona, Hawai'i

Fawn Helekahi-Burns Hana, Maui

> Reba Lopez Haleakala, Maui

Kaiea Medeiros Mauna Kahalawai, Maui

> Kaipo Kekona Lahaina, Maui

Rufina Kaauwai Molokai

Negus Manna Lāna'i

Brynn Foster North Shore, Oʻahu

Christian Zuckerman Wai'anae, Oʻahu

Ted Radovich Waimanalo, Oʻahu

Vincent Kimura Honolulu, Oʻahu

> Ray Maki Kauai



Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Senate Ways and Means 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 strongly supports and seeks to amend 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.

Mahalo for the opportunity to testify.

Kaipo Kekona, President HFUU/HFUF

Kennel S.K. Repune

Based on previous testimony and review of other health soils programs in other states, HFUU requests the adoption of amendments below to clarify program structure, function, and funding allocation:

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:

"<u>§141-</u><u>Healthy soils program; established.</u> (a) <u>The department of agriculture shall establish a healthy</u> <u>soils program.</u> 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.

<u>department shall:</u>

(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."

HAWAI'I FOREST INDUSTRY ASSOCIATION (HFIA)



Date: 02/20/2023

TO: WAM Chair Dela Cruz, WAM Vice Chair Keith-Agaran and WAM committee members

FROM: The Hawai'i Forest Industry Association (HFIA)

SUBJECT: In Support of SB660 SD1 Relating to Agriculture

Dear Chair Dela Cruz, Vice Chair Keith-Agaran and committee members,

On behalf of the Directors and members of the Hawai'i Forest Industry Association (HFIA), please support SB660 SD1 Relating to Agriculture.

As an association, we work toward promoting and actualizing Healthy and Productive Forests across the state. We understand the importance of soil health, plant biodiversity and the carbon sequestering capabilities soil and forests ultimately have. For these reasons we also see, understand and empathize with the need to optimize Hawaii's soil health on agricultural lands as well.

Allowing farmers, ranchers and property owners to maintain autonomy over their land and practices is important, which is why SB660's call to provide education, assistance and possibly funding to farmers/landowners is key.

Please support SB660 SD1 to support Hawaii's farmers and landowners in maintaining best practices relevant to soil health and building soil carbon stocks, which will benefit all of Hawaii's residents, visitors today and in the future.

Mahalo for your time and consideration,

Euy Cellier

Guy Cellier, Acting President Hawaii Forest Industry Association

Established in 1989, HFIA's is a nonprofit organization founded by people committed to sustainable forest management. HFIA's mission is to promote healthy and productive forests and a sustainable forest industry through management, education, planning, information exchange, and advocacy. HFIA has over 130 members including woodworkers, landowners, sawyers, foundations, foresters, growers, educators, environmentalists, architects, millers, ranchers, and others interested in HFIA's mission and goals.

HFIA Board of Directors

Officers: Acting President/Vice-President Guy Cellier, Secretary Peter D. Simmons, Treasurer Wade Lee Directors: Thomas Calhoun, Jeremy Campbell, Aaron Hammer, Nickolas Koch, Tai Lake, Michael Sowards, Irene Sprecher, Michael Tam, Jorma Winkler, Ron Wolfe, Aileen Yeh

<u>SB-660-SD-1</u>

Submitted on: 2/20/2023 6:38:24 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Harriet Witt	Testifying for Hawaii Farmers Union United	Support	Written Testimony Only

Comments:

You are as healthy as the soil where your food is growing.

By improving the health of our soils, we improve the health of ourselves.

Please support this bill. Mahalo, Harriet Witt, Haiku, Maui



To:The Senate Committee on Ways and Means (WAM)From:Sherry Pollack, Co-Founder, 350Hawaii.orgDate:Wednesday, February 22, 2023, 10:00 am

In strong support of SB660 SD1

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and WAM 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 SD1** 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. 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.

350Hawaii endorses the **suggested amendments** to this measure by the Hawaii Farmers Union United, (HFUU). These amendments seek to have this measure adopt the language from HB443 HD1 which clarifies program function, structuring, and funding approach.

If we are to meet Hawaii's food security goals, assessing and restoring soil health is critical to increasing local food production. 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 SD1, 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

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 8:39:54 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Lourdes millan	Testifying for Green islands acres llc	Support	Written Testimony Only

Comments:

I support sb660

SB-660-SD-1

Submitted on: 2/20/2023 9:20:23 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Carolyn Witcover	Testifying for Kona Coffee Farmers Association	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.



21 February 2023

To: Chair Dela Cruz, Vice Chair Keith-Agaran, and the Senate Committee on Ways and Means

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 **SUPPORT SB660**. On behalf of the Hawai'i Food+ Policy Internship, I would like to thank Chair Dela Cruz, Vice Chair Keith-Agaran, and the Senate Committee on Ways and Means, for considering the comments made herein.

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

References

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

[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.

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 2023, the cohort of interns are undergraduate 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, public health, nutrition, and Hawaiian culture.

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

SB-660-SD-1

Submitted on: 2/21/2023 8:32:44 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Leanne Kami	Testifying for Kohana Family Farms	Support	Written Testimony Only

Comments:

Aloha kākou, my name is Leanne Kami. I was born and raised in Pāhoa on Hawai'i island and now work in Hilo as a strategy consultant for Kamehameha Schools, focused on sustainable food system development in Hawai'i. Part of my duties includes participating as a Puna Soil Water & Conservation District Board member. I also own and manage Kohana Family Farms, a small organic farm in Pana'ewa. I am writing this letter in my capacity as a farmer and member of the Hawai'i Farmers Union United and the Hawai'i Farm Bureau Federation.

I strongly support SB660, which requires the Department of Agriculture to establish a Healthy Soils Program. 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 proposed in SB660 takes a comprehensive and holistic approach to soil health and sustainability. By establishing standards and goals for soil health and 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. I urge the legislature to pass SB660 and invest in the future of our state's agricultural sector by creating a Healthy Soils Program.

Thank you for the opportunity to testify in support of this measure.

Mahalo,

Leanne Kami

Kohana Family Farms

<u>SB-660-SD-1</u> Submitted on: 2/21/2023 8:56:04 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Susan Ing	Testifying for HECA Carbon Sequestration Task Force	Support	Written Testimony Only

Comments:

Aloha Ways and Means Committee Chair Donovan, Vice Chair Keith-Agarn, and Committee Members,

I am writing in support for SB660, Department of Agriculture, Healthy Soils Program.

Sequestering carbon in healthy soil is a relatively natural way of removing carbon dioxide, one of the main ingredients of greenhouse gases causing climate change, from the atmosphere with fewer impacts on land and water, requiring less energy, and lowers costs.

Having healthy soils means more plants photosynthesizing, drawing carbon out of the atmosphere, pulling it into their roots, and releasing it into the ground. If not for healthy soil, this carbon would return to the atmosphere as carbon dioxide.

Healthy soils can store more carbon and absorb more water, making it more resilient in a dry year. Healthy soils can improve water quality by retaining more water, which reduces runoff from croplands. Having healthy soils goes further in meeting the needs of a growing population and food production.

Please support SB660 to create a win-win-win for the producer, consumer, and the environment.

Mahalo,

Susan Ing

HECA Carbon Sequestration Task Force





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 22, 2023

HEARING BEFORE THE SENATE COMMITTEE ON WAYS AND MEANS

TESTIMONY ON SB 660 SD1 RELATING TO AGRICULTURE

Conference Room 211 & Videoconference 10:00 AM

Aloha Chair Dela Cruz, Vice-Chair Keith-Agaran, and Members of the Committee:

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

The Hawai'i Farm Bureau respectfully opposes the Senate Draft 1 of SB 660 which would create a Healthy Soils Program within the DOA and ban certain methods of production.

As noted in the AEN Committee report, the SD1 amendments were adopted after they were recommended by the Washington, D.C. group, Beyond Pesticides. While there is no question that we support healthy soils, we do not agree that the only means to ensure healthy soils is as mandated in the current version of the bill.

HFB supports all sizes and types of farming and believes that we need all to reach our State goals of more self-sufficiency. The phase-out of synthetic fertilizers and potential other bans that are not clear within the new amendments will occur naturally when we have adequate and *environmentally sound replacement methods* to successfully grow our food and other products. In the meantime, to our knowledge, no other state has imposed a ban of this sort on their agricultural producers and we believe that is with very good reason.

Thank you for the opportunity to testify in opposition to this issue.





COMMITTEE ON WAYS AND MEANS Senator Donovan M. Dela Cruz, Chair Senator Gilbert S.C. Keith-Agaran, Vice Chair

<u>SB660 SD1</u>

RELATING TO AGRICULTURE

Wednesday, February 22, 2023, 10:00 AM Conference Room 415 & Videoconference

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee,

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

The Hawaii Cattlemen's Council **opposes SB660 SD1** which requires the department of agriculture to establish a healthy soils program.

Healthy soils are necessary for ensuring we can continue to grow food on the land. Agriculture can be a beneficial contributor to managing the environment when the appropriate practices are deployed. This bill will provide the support to farmers and ranchers to encourage practices that increase soil health, but we do not support the addition in SD1 which will phase out the use of synthetic fertilizers. We support all types of food production. Farming and ranching in Hawaii, the most isolated land mass in the world, is challenging enough. Introducing legislation that on one hand supports local food production, while at the same time limiting the safe tools available to our farmers and rancher, is contradictory and not in alignment with the State of Hawaii's food security initiatives.

Nicole Galase Hawaii Cattlemen's Council Managing Director



P.O. Box 934 • Hilo, HI 96721 • (808) 333-6755 • www.hicattle.org • office@hicattle.org



THE SENATE KA 'AHA KENEKOA

THE THIRTY-SECOND LEGISLATURE REGULAR SESSION OF 2023

<u>COMMITTEE ON WAYS AND MEANS</u> Senator Donovan M. Dela Cruz, Chair Senator Gilbert S.C. Keith-Agaran, Vice Chair

Wednesday, February 22, 2023 10:00 AM Conference Room 211 & Videoconference State Capitol 415 South Beretania Street

RE: SB660 SD1 RELATING TO AGRICULTURE

My name is Eric S. Tanouye and I am the President for the Hawaii Floriculture and Nursery Association. HFNA is a statewide umbrella organization with approximately 350 members. Our membership is made up with breeders, hybridizers, propagators, growers, shippers, wholesalers, retailers, educators, and the allied industry, which supports our efforts in agriculture.

The Hawaii Floriculture and Nursery Association (HFNA) **OPPOSES SENATE Bill 660 SD1**

The Hawaii Floriculture and Nursery Association (HFNA) understands the need to be good caretakers of our environment and media. We do not agree that this can only be accomplished through the phasing out of petrochemical synthetic fertilizer and adopting a holistic approach. Taking away an important tool of nurserymen and women will only put a greater burden on our agribusinesses.





If you have any questions at this time, I would be happy to discuss them and can be reached by phone at 808-959-3535 ext 22, cell 960-1433 and email eric@greenpointnursery.com.

Supporting Agriculture and Hawaii,

Eric S. Tanouye President Hawaii Floriculture and Nursery Association

<u>SB-660-SD-1</u> Submitted on: 2/16/2023 4:32:53 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Caroline Azelski	Individual	Support	Written Testimony Only

Comments:

In support of SD1. Thank you.

Submitted on: 2/17/2023 11:33:34 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Hello,

My name is Nanea Lo. I'm born and raised in the Hawaiian Kingdom a Kanaka Maoli.

I'm writing in SUPPORT of SB660 SD1.

me ke aloha 'āina, Nanea Lo, Mō'ili'ili

Submitted on: 2/17/2023 11:37:09 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Joseph Wat	Individual	Support	Written Testimony Only

Comments:

Soils are consistently overlooked in agricultural planning an management.

The establishment of guidelines AND designating funding for farmer outreach, technical training, and support in reaching those guidelines is essential in protecting this important resource.

Soils lost through poor management or significantly degraded by abusive soil contamination decrease Hawai'is long term liveability and cause incredible vulnerability for the state.

Submitted on: 2/17/2023 12:16:48 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Nancy Redfeather	Testifying for Ka Ohana O Na Pua	Support	Written Testimony Only

Comments:

Aloha Chair, Vice-Chair, and Members of the Committee,

As you know, our soils are vital living ecosystems 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 Hawaii's soils are severely depleted from over a century of plantation agricultural practices. If we are to meet Hawaii's food security goals, assessing and restoring soil health is critical to increasing local food production.

Healthy Soils, Healthy Food, Healthy People, Healthy Communities.

SB660 SD1 is a win-win for our farmers and our local environment. Please support this important measure.

Aloha, Nancy Redfeather - Director Ka Ohana O Na Pua

Submitted on: 2/17/2023 1:09:17 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

So much is good about this bill which is environmental and helps food security besides merely agricultural. Of course healthy soil is a must for farmers and what they provide our communities.

<u>SB-660-SD-1</u> Submitted on: 2/17/2023 4:10:11 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

All hands on deck for our agriculture. Remediation is a basic need for our soils.Please vote Yes.

Submitted on: 2/18/2023 9:33:55 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Noel Morin	Individual	Support	Written Testimony Only

Comments:

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and Committee members,

I SUPPORT SB660 SD1. This will help Hawaii establish practices that will optimize food production and nature-based carbon storage and enhance our sustainability and resilience.

Sincerely, Noel Morin Climate, Sustainability, and Resilience Advocate Hilo

SB-660-SD-1 Submitted on: 2/18/2023 5:11:47 PM

Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Dear Chair, Vice-Chair, and Committee:

I support this bill to guide and encourage Hawaiian farmers and landholders towards building healthy soil and sequestering carbon. I am just starting out developing a small farm in lower Puna and the intent of this bill meshes with strengthening of our local agricultural community in a way I hope to be a part of. Moving forward with creative solutions like small scale bio char production, mixing perennial fuel crops such as African Oil Palm with food plants or animals I look forward to a happier healthier future for my neighborhood and all of Hawaii.

Thank you for your time

Jennifer Sonneborn

<u>SB-660-SD-1</u> Submitted on: 2/18/2023 8:32:26 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Doug Kroll	Individual	Support	Written Testimony Only

Comments:

This is past due.

Doug Kroll

Submitted on: 2/18/2023 11:46:59 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Kayla Domingo	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support SB660 SD1 to establish a healthy soils program. Soil is a vital and living ecosystem that provides critical functions supporting ecological, economical, and social wellbeing 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 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.

SB660 SD1 is a win-win for our farmers and our local environment. Please support this important measure.

Thank you for your consideration,

Kayla Domingo, Ewa Beach, HI

Submitted on: 2/19/2023 9:26:40 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Michele Nihipali	Individual	Support	Written Testimony Only

Comments:

I support SB660 SD1 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.

-Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems. Supporting carbon sequestration efforts such as those delineated in this Healthy Soils Program is a win-win for the climate and local food production.

-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 Hawaii's soils are severely depleted from over a century of industrial agricultural practices. Assessing and restoring soil health is critical to increasing local food production to help meet Hawaii's food security goals and also mitigate the climate crisis.

Please support AB660 SD1

Thank you for your consideration,

Michele Nihipali

54-074 A Kam Hwy.

Hauula, HI 96717

Submitted on: 2/19/2023 12:03:02 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Honorable Members,

I respectfully ask that you support SB660 SD1, the Department of Agricultuire healthy soils program.

Thank you for your attention and consideration.

Melissa Barker

Kapaa, HI

Submitted on: 2/19/2023 1:13:25 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
P Noel Bobilin	Individual	Support	Written Testimony Only

Comments:

I support SB660 SD1 to establish a healthy soils program.

Healthy soil includes biodiverse microbial life. It grows healthyer and higher yeilds. Regenerative farming practices capture carbon to enrich soil health.

Much of Hawaii's soils are severely depleted from over a century of industrial agricultural practices. Assessing and restoring soil health is critical to increasing local food production to help meet Hawaii's food security goals and also mitigate the climate crisis. Supporting carbon sequestration efforts such as those delineated in this Healthy Soils Program is a win-win for the climate and local food production.

Submitted on: 2/19/2023 6:56:28 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

STRONG SUPPORT for SB660

I urge strong support SB660 SD1 to establish a healthy soils program.

Healthy Soils Program is a win-win for the agricultural productivity and local food production.

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 Hawaii's soils are severely depleted from over a century of industrial agricultural practices. Assessing and restoring soil health is critical to increasing local food production to help meet Hawaii's food security and local economic development.

Respectfully submitted,

Keith Neal

Waimea

<u>SB-660-SD-1</u> Submitted on: 2/19/2023 8:50:54 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Elizabeth Hansen	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support this bill.

Mahalo,

Elizabeth Hansen, Hakalau HI 96710

<u>SB-660-SD-1</u> Submitted on: 2/19/2023 9:09:56 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Rodger Hansen	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please support this bill.

Mahalo,

Rodger Hansen, Hakalau HI 96710

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 9:41:00 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Aileen K . F. Yeh	Individual	Support	Written Testimony Only

Comments:

I am isupport

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 9:42:50 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Elaine Wender	Individual	Support	Written Testimony Only

Comments:

Strongly support

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 9:52:47 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Strongly support

Submitted on: 2/20/2023 9:58:37 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Donn DeShayne	Individual	Support	Written Testimony Only

Comments:

I cannot stress my support enough for this measure. Encouraging healthy soils sequesters carbon, rebuilds depleted soils, promotes healthy crops and reduces the use of pesticides and chemical inputs. Please seriously consider the value of this approach to agriculture. Thank you.

Submitted on: 2/20/2023 10:23:43 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
MICHELE WEINHOUSE	Individual	Support	Written Testimony Only

Comments:

My name is Michele Weinhouse. As a farmer on and a resident of Lāna'i, I worry about all the pesticides in the land and filtered down to our aquifer left from pineapple plantation days. Regenerative farming is the pono way to farm so that we leave our island a better place than it is today. A makana to our keiki. Mistakes were made in the past and do not need to continue to be made in the present.

Submitted on: 2/20/2023 10:43:45 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Please support SB660. Healthy soil is the foundation for healthy, nutritious food. It has been a surprise to me that Hawaiian farmers use fertilizers, which wash out in the rain and pollute our water, but don't know the value of compost, which holds water, provides a variety of nutrients, and makes all types of soils healthier as a soil amendment. Please support healthier soils for healthier foods!

Submitted on: 2/20/2023 10:58:04 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Lois Crozer	Individual	Support	Written Testimony Only

Comments:

I strongly support healthy soils which leads to healthy communities. We need to ensure our citizens have healthy, sustainable food, especially considering all that climate change is bringing us. PLEASE support this bill.

Submitted on: 2/20/2023 11:32:41 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ken Stover	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. Healthy soils are vital to this effort.

Submitted on: 2/20/2023 11:33:24 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
VINCENT KIMURA	Individual	Support	Written Testimony Only

Comments:

Healthy Soils, healthy plants, healthy people. It all comes back to how we take care of our soil. A great reference is the documentary Kiss the Ground, if you need more data to validate the afore statement.

Submitted on: 2/20/2023 11:47:11 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ruth Robison	Individual	Support	Written Testimony Only

Comments:

Dear Committee Members:

I am in strong support of SB660 SD1. Healthy Soils Program will agricultural productivity and local food production, and help mitigate climate change

Research has shown 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.

Assessing and restoring soil health is critical to increasing local food production to help meet Hawaii's food security and local economic development.

Thank you for your service to the people of Hawaii and thank you for the opportunity to testify.

Aloha no, Ruth Robison, Hilo

Submitted on: 2/20/2023 11:57:33 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

I strongly support SB660 to create healty soils. Soil is the basis, not only for our producing food for our survival, but also for sequestering carbon from the atmosphere in an effort to reduce the extent of climate change.

While many people hold to the idea that technology will develop ways to undo the damages to our planet, soil and the ecosystem provide ready available and proven solutions that also have the effect of improving the quality of human life.

Science is behind this, small farmers are behind this and people who are concerned about the quality of the food they feed their childen are behind this bill. Please pass SB660.

Submitted on: 2/20/2023 12:23:14 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Terry Kristiansen	Individual	Support	Written Testimony Only

Comments:

As a small farmer, living off the grid with a sustainable lifestyle, we count on the State of Hawaii to support lage and small famers in their efforts to feed themselves and those within their community. It all starts with a healthy soil structure. Please support the "Healthy Soil Program" by passing the bill.

Thank you,

Terry Kristiansen

Entabeni Gardens

Submitted on: 2/20/2023 12:57:28 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Kerry Arlene Beane	Individual	Support	Written Testimony Only

Comments:

I strongly support SB660 and full implementation of the Healthy Soils Program. Practices for regenerating not depleting the land must be espoused and taught for a high standard of land care. Agricultural systems based on short term profits are not compatible with long term holistic stewardship. We must steward the land holistically and wisely for the future. Please without hesitation support legislation promoting care of the A'ina and regenerative land management practices. SB660 is a good start for the journey of reeducation that must occur in agriculture, for Hawai'i ne'e and worldwide. Aloha.

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 1:02:39 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
kalen Fleming	Individual	Support	Written Testimony Only

Comments:

I support sb660

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 1:18:28 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha, I strongly support this bill! Healthy soil is VITAL to our own health and lives! Mahalo.

Submitted on: 2/20/2023 1:25:55 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha kakou!

Soil, dirt, too long been misunderstood, neglected, and abused. No more soil, no more healthy microbes, no more healthy foods. Please give your full support to SB660. Soil is the foundation of our agriculture and being that we import 90% of everything we eat and use we best be taking very good care of our soil.

Do all you can to Malama the soil.

Stop spraying poison.

Stop tilling black weed mat into the soil.

Stop covering it with the roads and concrete. Give your full support to SB 660.

This is a proactive measure designed to increase the fertility and well-being of soil for those coming after us.

Malama ka `Aina- it's our home.

Aloha Nui!

Vince Kana'i Dodge

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 2:13:16 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha,

Save our Soil ! Save our farmers ! Strong Support for SB 660 !

Mahalo,

JN Makawao

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 2:48:01 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Jimmy Gomes	Individual	Support	Written Testimony Only

Comments:

I support SB660 and stand with Hawaii Cattlemen's Council testimony

Submitted on: 2/20/2023 2:51:39 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha Senators,

Please support SB660. Healthy soils= healthy food= healthy farmers=healthy eaters= healthy environment.

Thats a win x 5 !

Thank you for thinking about our local community.

Regards,

Pamela Burrell, Kalihiwai, Kaua'i

Submitted on: 2/20/2023 3:29:44 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Dylan Ramos	Individual	Support	Written Testimony Only

Comments:

Aloha,

I am testifying in SUPPORT of SB660 SD1. If Hawai'i is serious about its stated commitments to sustainability — whether we're talking about food production, public health, the climate crisis, environmental health and biodiversity, etc. — then we require healthy soils.

Mahalo,

Dylan Ramos

96816

Submitted on: 2/20/2023 4:34:37 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha,

I strongly support this bill.

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.

Mahalo, Marilyn Mick, Honolulu

Submitted on: 2/20/2023 4:54:09 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

As a solo farmer on red clay soil on mountainside Kahuku, I started with basically "dead" soil five years ago. With lots of compost and amendments I now harvest enough produce to supply 20 local families (thru our CSA) on a weekly basis. Healthy soil is key to healthy diets to prevent so many diseases plaguing our people. This bill is extremely important for local agriculture so that we do not have to depend on mainland produce. Please fund and pass SB660.

Submitted on: 2/20/2023 5:08:25 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
James Crum	Individual	Support	Written Testimony Only

Comments:

Our state's agricultural sector is currently struggling to make a difference for Hawaii, and is critical to helping us sustain ourselves in this remote place on the planet. Healthy soil means healthy food means healthy people means healthy island. It's that simple. However best practices for healthy soils need to be taught, learned and then practiced and perfected by modern ag producers. As I understand it, this bill will be providing farmers with education, technical assistance, and financial incentives to implement farm management practices that contribute to healthy soils, and with that knowledge we can help ensure that our state's ag land, and as a result the islands, remains fertile, productive, and sustainable for future generations.

I believe this approach is similar to California's Healthy Soils Program which funds demonstration and implementation grants that support conservation agriculture practices, and sees similar benefits, however these needs are even greater for Hawaii with its more limited land.

I therefore urge the legislature to pass SB660 and, by doing so, invest in the future of our state's agricultural lands, the food it produces, and the people and islands we love so dearly, by creating a Healthy Soils Program.

<u>SB-660-SD-1</u> Submitted on: 2/20/2023 5:16:14 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha, I am writing in support of SB660 SD1 which establishes a healthy soils program.

As you know, soil is a vital and living ecosystem. It 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.

Optimum soil includes microbial life, soil biodiversity, and the capacity to capture carbon. Regenerative farming practices capture carbon to enrich soil health. This mitigates agricultural climate impacts, while increasing soil productivity for farming.

Unfortunately, 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.

This is where SB660 SD1 comes in to help.

If passed, SB660 SD1 will create a master list of practices which assist farmers with soil health and a healthy soils campaign to assist with greenhouse gas sequestration, and technical assistance to farmers as well as awards and financial incentives to promote these initiatives.

This bill is a really good deal and great for our goals in sustainability. SB660 SD1 is a win-win for our farmers and our local environment.

Please do what you can to support this important measure.

Mahalo for your time.

Submitted on: 2/20/2023 5:48:31 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha mai kākou,

I support SB660, SD1.

Mahalo for your time and attention to this matter.

Lisa DeSantis, Waimea, Hawai'i Island

Submitted on: 2/20/2023 10:56:14 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Benjamin Mock	Individual	Support	Written Testimony Only

Comments:

Healthy soils are essential to the future of agriculture in Hawaii and without them we will be unable to increase food security in the Hawaiian islands. As a local small-scale farmer on the island of Kauai, having greater access to soil-building resources will positively impact my business, as well as the majority of other small farms within the state. Thanks for your time.

Submitted on: 2/20/2023 11:36:46 PM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha,

As an organic practice farmer, I strongly support SB 660. Healthy food depends on healthy soil. Healthy soil is the lifeblood of our ecosystem. Please protect it. Mahalo,

Barbara Barry

<u>SB-660-SD-1</u> Submitted on: 2/21/2023 7:04:11 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Cecelia Smith	Individual	Support	Written Testimony Only

Comments:

we are in favor of this. Mahalo.

<u>SB-660-SD-1</u> Submitted on: 2/21/2023 7:55:23 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
robert brower	Individual	Support	Written Testimony Only

Comments:

strong support

<u>SB-660-SD-1</u> Submitted on: 2/21/2023 8:36:45 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

I urge strong support for this bill. DFL

Submitted on: 2/21/2023 9:31:29 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

SB660 WAM for 2/22

Members of the Ways and Means Committee,

Mahalo for this opportunity to testify.

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.

Mahalo,

Virginia Tincher, Aina Haina, Oahu

Submitted on: 2/21/2023 9:33:57 AM Testimony for WAM on 2/22/2023 10:00:00 AM

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

Comments:

Aloha Chair Dela Cruz and Members of the WAM 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



<u>SB-660-SD-1</u> Submitted on: 2/21/2023 1:31:11 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Christine Carter	Individual	Support	Written Testimony Only

Comments:

I am strong support of this bill



<u>SB-660-SD-1</u> Submitted on: 2/21/2023 2:31:37 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Christian Zuckerman	Testifying for Kuwale Ridge Farms	Support	Written Testimony Only

Comments:

I strongly support bill SB 660. Soil health is of utmost importance for the future of sustainable farming in Hawaii. The agricultural system that has evolved across Hawaii has been an industrial model that has been profit driven and has had detrimental effects on the soil health. It was a very effective model from a profit standpoint but has resulted in many issues that are becoming more prevalent by the day. These industrial agricultural practices of monoculture, synthetic pesticides, heavy tillage and equipment use, and lack of diversity are some of the leading issues and these affect not only the soil health but also the nutritional value of the food. Not to say that these practices do not have a role in agriculture but need to be minimized and education needs to be provided to show that there are simple actions as a farmer to be taken to help address these issues. If we do not take action to help address soil health degradation - the climatic issues, desertification, lack of nutrition, and the exponential increase in costs - will only continue to grow. Soil Health practices need to be destigmatized and education provided for farmers. Given the chance, most farmers will see the benefits and make changes but without the support will not make this paradigm shift.

Aloha

Christian Zuckerman



<u>SB-660-SD-1</u> Submitted on: 2/21/2023 7:56:01 PM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
celia tapp	Individual	Support	Written Testimony Only

Comments:

I support healthy soils program!



<u>SB-660-SD-1</u> Submitted on: 2/22/2023 7:01:07 AM

Submitted on: 2/22/2023 7:01:07 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Nancy Romaine	Individual	Support	Written Testimony Only

Comments:

Aloha,

We need to prioritize health soils, for carbon sequesteration as well as to support the healthy of our community. Please support SB660.

Mahalo,

Nancy



<u>SB-660-SD-1</u> Submitted on: 2/22/2023 10:56:23 AM Testimony for WAM on 2/22/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
ANDREW ISODA	Individual	Support	Written Testimony Only

Comments:

- I support SB660 SD1 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.

-Healthy soils are the foundation of sustainable food production, climate readiness, and diverse ecosystems. Supporting carbon sequestration efforts such as those delineated in this Healthy Soils Program is a win-win for the climate and local food production.

-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 Hawaii's soils are severely depleted from over a century of industrial agricultural practices. Assessing and restoring soil health is critical to increasing local food production to help meet Hawaii's food security goals and also mitigate the climate crisis.