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 HOUSE COMMITTEE ON AGRICULTURE AND FOOD SYSTEMS

WEDNESDAY, FEBRUARY 15, 2023 ROOM 325 9:00 AM

HOUSE BILL NO. 443 RELATING TO AGRICULTURE

Chairperson Gates and Members of the Committee:

Thank you for the opportunity to testify on House Bill No. 443 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 offers comments, has concerns, and offers a recommendation.

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



Page 2

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 HB443 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, HB443 appears to be duplicative of HB188 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.



ON THE FOLLOWING MEASURE: H.B. NO. 443, RELATING TO AGRICULTURE.

BEFORE THE: HOUSE COMMITTEE ON AGRICULTURE AND FOOD SYSTEMS DATE: Wednesday, February 15, 2023 TIME: 9:00 a.m. LOCATION: State Capitol, Room 325 TESTIFIER(S): Anne E. Lopez, Attorney General, or Jodi K. Yi or Bryan C. Yee, Deputy Attoneys General

Chair Gates 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 within the Department of Agriculture a healthy soils program. Among other things, the program would "issue awards and other financial incentives to implement farm management practices that contribute to healthy soils." (Page 2, lines 3-5).

The awards and financial incentives appear to be grants, which would be subject to article VII, section 4, of the Constitution of the State of Hawaii, which 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 found in 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

- 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.



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 15, 2023

HEARING BEFORE THE HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

TESTIMONY ON HB 443 RELATING TO AGRICULTURE

Conference Room 325 & Videoconference 9:00 AM

Aloha Chair Gates, Vice-Chair Kahaloa, and Members of the Committee:

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

The Hawai'i Farm Bureau supports HB 443, 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 Hawaii. 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 Hawaii'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.

HB-443 Submitted on: 2/13/2023 4:57:47 PM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Aloha Chair and Committee Members:

Please accept my full support for HB443.

As a long-time organic farmer, we know that healthy plants must begin with healthy soils.

To be sustainable, we can and should ensure that all soil inputs (fertilizers, etc.) can and do come from Hawaii directly, and I request that you seriously consider amending this piece of legislation to so state as a requirement of HDOA (not only an emphasis in that directlion, but the establishment of on-the-ground efforts to ensure that local Hawaii soil input production and distribution are supported through education, outreach and grant programs.

As one example, fish-based fertilizers which are already made in Hawaii could become the mainstay. Another across the board needed and useful example is incorporation of Hawaii biochar into such efforts. Distribution of these if the stopping point, especially at the small-scale and HDOA can and should be prioritizing this kind of effort.

As a former membr of the National Organic Standards Board (2011-2016) where I was one of 15 to together provide advice to the Secretary of Agriculture on organic inputs, there is a long ways to go at all levels, I know, but starting at home, here in Hawaii, is the best for all involved and my request is that you so strive.

Frankly, the HDOA needs and should seek to establish an organic Advisory Board who can advise, and this would start with the soils where all organic foods must be grown.

Thank you in advance and for your support on this legislation.

Sincerely,

Colehour Bondera

KANALANI OHANA FARM

colemel2@gmail.com

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 Gates, Vice Chair Kahaloa, and Members of the House Agriculture & Food Systems 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 HB443 and seeks amendments.**

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

Kend S.K. Kehme

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)

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

<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."



To:The House Committee on Agriculture & Food SystemsFrom:Sherry Pollack, Co-Founder, 350Hawaii.orgDate:Wednesday, February 15, 2023, 9:00 am

In strong support of HB443

Aloha Chair Gates, Vice Chair Kahaloa, and Agriculture & Food Systems 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 HB443** 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 winwin for the climate and local food production. To address the climate crisis, we need to move forward on efforts such as those described in HB443, 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



February 13, 2023

To: Chair Gates, Vice Chair Kahaloa, and the House Committee on Agriculture and Food Systems

Re: HB443, RELATING TO AGRICULTURE

I, Kahealani Acosta, testify IN SUPPORT of HB443, 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 HB443**. On behalf of the Hawai'i Food+Policy Internship, I would like to thank Chair Gates, Vice Chair Kahaloa, and members of the House Committee on Agriculture and Food Systems, 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 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.

[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.



COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

Rep. Cedric Asuega Gates, Chair Rep. Kirstin Kahaloa, Vice Chair

<u>HB443</u>

RELATING TO AGRICULTURE

Wednesday, February 15, 2023, 9:00 AM Conference Room 325 & Videoconference

Chair Gates, Vice Chair Kahaloa, 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 **supports HB443** 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. The Hawaii Cattlemen's Council is proud to be part of a partnership led by the University of Hawaii at Manoa that will be implementing the Partnerships for Climate Smart Commodities grant to provide support for farmers and ranchers who are implementing climate smart practices. While this is a 5-year grant, efforts from the state will help to reach more producers and encourage more practices to be implemented across the state.

Nicole Galase Hawaii Cattlemen's Council Managing Director



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

HB-443 Submitted on: 2/14/2023 8:24:04 AM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

I strongly support HB 443.



House Committee on Agriculture & Food Systems

Hawai'i Alliance for Progressive Action (HAPA) Supports: HB443

Wednesday, February 15th, 2023 9:00 a.m. Conference Room 325

Aloha Chair Gates, Vice Chair Kahaloa and Members of the Committee,

HAPA supports HB443 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

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, 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.

HAPA believes that HB443 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. HB443 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Please support HB443 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>

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.

<u>HB-443</u> Submitted on: 2/13/2023 11:05:11 AM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Hello,

Please support HB443 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.

HB443 is a win-win for our farmers and our local environment. Please support this important measure.

me ke aloha 'āina,

Nanea Lo, Mōʻiliʻili

HB-443 Submitted on: 2/13/2023 12:37:01 PM Testimony for AGR on 2/15/2023 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Dana Keawe	Individual	Support	Written Testimony Only

Comments:

Strong support

HB-443 Submitted on: 2/13/2023 6:34:02 PM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Please support this important bill.

<u>HB-443</u>

Submitted on: 2/13/2023 9:48:26 PM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Aloha,

I support this bill for Hawai'i's farmers, families, and 'āina. In conjunction with bills supporting farm-to-table programs, composting, cover crops, carbon sequestration, and sustainable agriculture, HB443 can advance public, ecological, and even economic health. Furthermore, as a key battleground in the global fight against pesticide pollution, Hawai'i deserves a focus on healthy soils.

Mahalo, Dylan Ramos 96816

HB-443 Submitted on: 2/13/2023 11:21:45 PM Testimony for AGR on 2/15/2023 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Matthew Geyer	Individual	Support	Written Testimony Only

Comments:

Thank you for hearing HB443.

We need to do whatever we can to help improve the quality of Hawaii's soils and increase the sequestration of carbon in our soils to improve our resiliency and reduce our impact on global climate change.

Please support HB443

Matthew Geyer

HB-443 Submitted on: 2/14/2023 12:47:15 AM Testimony for AGR on 2/15/2023 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Jason Mark Alexander	Individual	Support	Written Testimony Only

Comments:

Aloha,

My name is Jason Mark Alexander, and I strongly support HB443 as a settler in Mānoa and PhD student in sociology at UHM.

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.

HB443 is a win-win for our farmers and our local environment. Please support this important measure.

HB-443 Submitted on: 2/14/2023 7:09:39 AM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Support. Thank you.

<u>HB-443</u>

Submitted on: 2/14/2023 9:13:22 AM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

In strong support. healthy soils are the foundation of resilient agriculture and the only way we will be able to continue to grow food long into the future. a program like this should have been in place decades ago. Any farmer worth his or her salt knows that you don't farm a product, you care for the soil and that makes all the rest possible.

<u>HB-443</u>

Submitted on: 2/14/2023 2:39:10 PM Testimony for AGR on 2/15/2023 9:00:00 AM

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

Comments:

Dear Chair Gates, Vice Chair Kahaloa, and Committee members,

I support HB443, a measure that will allow Hawaii to increase its focus on soil health and practices that enable more sustainable food production and land use.

Please support HB443.

Sincerely,

Noel Morin

Climate, Sustainability, and Resilience Advocate

Hilo

HB 443 – RELATING TO AGRICULTURE

Chair Gates, Vice Chair Kahaloa, and Members of the House Committee on Agriculture & Food Systems:

My name is AJ Samorin, a student at the University of Hawaii at Manoa. Thank you for giving me the chance to speak in favor of House Bill 443 which mandates the implementation of the Healthy Soils program and appropriation of funds by the Department of Agriculture. The Healthy Soils Program will provide guidelines and procedures for the conservation and continued development of healthy soils. This program will also give Hawaii's farmers the training, support, and incentives they need to follow the program's guidelines. Prioritizing the health of Hawaii's soils is crucial to maintaining a sustainable agricultural industry.

The distinctive island landscapes of Hawai'i and its history of soil deterioration brought on by intense crop cultivation highlight how crucial it is to restore and prioritize soil health. In the face of global concerns including severe storms, drought, greenhouse gas emissions increasing, and scarce resources like water and nutrients, building soil health is essential to maintaining farm output. Furthermore, I am particularly in favor of providing Hawaii's farmers with the support and knowledge necessary to care for the soils because the land is their livelihood, and passion, and may even be one of their utmost priorities.

Although I am not native to this land, I strongly believe in the importance of caring for the land, this place that has shaped the person I have become. Prioritizing healthy soils and developing sustainable agriculture is one of the many ways to give back to the land just as much as it has provided for us. Thank you so much and please take my testimony into consideration.