JOSH GREEN, M.D. Governor

> SYLVIA LUKE Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

**DEXTER KISHIDA**Deputy to the Chairperson

# State of Hawai'i DEPARTMENT OF AGRICULTURE KA 'OIHANA MAHI'AI

1428 South King Street Honolulu, Hawai'i 96814-2512 Phone: (808) 973-9600 FAX: (808) 973-9613

## TESTIMONY OF SHARON HURD CHAIRPERSON, BOARD OF AGRICULTURE

#### BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

FRIDAY, FEBRUARY 2, 2024 1:00 PM CONFERENCE ROOM 224

#### SENATE BILL NO. 2423 RELATING TO AGRICULTURE

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

Thank you for the opportunity to testify on Senate Bill 2434 that requires the Department of Agriculture (Department) to establish a healthy soils program. There is an appropriation of \$500,000 for FY24-25 to establish the program and the required financial incentives. The Department offers comments and a recommendation.

A 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 appropriation 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 the responsible, transparent, and effective statewide program envisioned in this measure.

This bill lacks 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 Department strongly recommends that the Green House Gas Sequestration Task Force (Task Force) (Section 225P-4), rather than the Department of Agriculture be assigned the tasks described in this measure. The Task Force 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 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;
- Identifying 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
- Identifying what incentives, grants, research, and assistance are needed to promote identified agricultural practices.

The Department believes that avoiding a duplication of duties and responsibilities that is well-established in another organization is in the State's best interests.

Further, SB2423 also appears to be duplicative of the objectives of the three-year Hawaii Carbon Smart Land Management Assistance 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.

Submitted on: 1/30/2024 6:22:14 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

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

#### Comments:

This Bill is an important step in addressing the climate crisis. We can reduce our GHG gases with less herbicides and pesticides and turn our farm lands into rich soil that is more resilent to extreme weather, produces healthier crops and sequesters carbon. An investment in farmers knowledge is a wise invest in our economy and our environment and our people

Stron support for SB2423



Hawai'i Forest Industry Association

7192 Kalaniana'ole Hwy Suite A-143A, #249 Honolulu, HI 96825 Phone: 808/933/9411

Email: hfia@hawaiiforest.org

Date: 01/30/24

TO: AEN Chair Holt, AEN Vice Chair Richards and AEN Committee Members DeCoite, Rhoads, Awa

**FROM:** the Hawai'i Forest Industry Association (HFIA)

SUBJECT: Testimony in Support for SB2423, Relating to Agriculture (Healthy Soils Program)

Dear Chair Gabbard and Committee Members,

On behalf of the Directors and members of the Hawai'i Forest Industry Association (HFIA), please support SB2423 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 SB2423's call to provide education, assistance and possibly funding to farmers/landowners is key.

Please support SB2423 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 and visitors, today and in the future.

Mahalo for your time and consideration,

Fuy Cellier

Guy Cellier, President Hawai'i Forest Industry Association

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: President Guy Cellier, Vice President Irene Sprecher, Secretary Taylor Coons, Treasurer Wade Lee Directors: Jeremy Campbell, Aaron Hammer, Nicholas Koch, Michael Sowards, Aileen Yeh



#### COMMITTEE ON AGRICULTURE AND ENVIRONMENT Senator Mike Gabbard, Chair Senator Herbert M. "Tim" Richards, III, Vice Chair

#### <u>SB2423</u> RELATING TO AGRICULURE

Friday, February 2, 2024, 1:00 PM Conference Room 224 & Videoconference

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

The Hawaii Cattlemen's Council <u>supports SB2423</u> which requires the Department of Agriculture to establish a Healthy Soils Program. Requires an annual report to the Legislature.

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.

We appreciate the opportunity to testify on this measure. 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.

Nicole Galase Hawaii Cattlemen's Council Managing Director









Submitted on: 2/1/2024 7:16:13 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Sara Tekula	Testifying for Haleakala Biochar	Support	Written Testimony Only

#### Comments:

Aloha mai kākou,

Mahalo nui for taking the time to carefully consider your support of SB2423 Relating to Agriculture, aka the "Health Soils Program." I'm testifying today on behalf of my business, Haleakalā Biochar, in STRONG SUPPORT of SB2423.

My name is Sara Tekula, and I'm the owner of a biochar facility located on Maui's Haleakalā Ranch, a facility that has been made possible with significant funding from the County of Maui's Office of Innovation and Sustainability and the County's Department of Environmental Protection and Management.

We have been in operation since early 2020, when the COVID-19 shut down led to an extreme shortage of imported soil products on Maui. We use an emissions-free production process to remove the abundant invastive fire fuel trees (Eucalyptus, Black Wattle, Conifers) on the slopes of Haleakalā to make our biochar, which solves several of our problems at once: greenhouse gas reduction, wildfire hazard mitigation, and helping to restore our degraded soils.

We are in strong support of SB2423 because we believe that soil is at the foundation of our very survival, and if it continued to be depleted and mistreated we will all be negatively affected. Our soils here in the tropics are naturally degraded, with soil organic matter (SOM) decomposing rapidly idue to the high temperatures and/or high levels of precipitation. In order to continue to feed our community and prevent harm from future generations, we need to prioritize soil health.

In February 1937, President Franklin D Roosevelt wrote to all State Governors in the USA. In his letter, he made the case for effective soil management, including the powerful phrase: "The nation that destroys its soil destroys itself." This hasn't been more true than it is today, with soils in Hawai'i recovering from a century of production in the sugarcane and pineapple industries. High levels of monocrop commercial farming has been proven to deplete the soil of nutrients (making the soil less productive over time), reduces organic matter in soil and can cause significant erosion. In addition, repeated uses of chemical fertilizers threatens our fresh water resources and near-shore ocean environments, further spreading the negative impacts of commercial monocrop farming.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

We must make steps towards a healthy soil future for our keiki and their keiki. And we must make it easier for our local farmers to make better choices around soil health. The team at Haleakalā Biochar has the interest and ability to help the Department of Agriculture to provide educational and technical assistance to implement farm management practices that contribute to healthy soils, should you pass this bill.

Please consider the health of our current and future generations, and pass SB2423.

Me ka mahalo nui,

Sara Tekula Haleakalā Biochar

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February 1, 2024

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

Subject: **SB2423:** Department of Agriculture Healthy Soil Program:

Aloha,

Hawaii Food+ Policy **supports Senate Bill No. 2423** which presents a comprehensive and forward-thinking approach to addressing the challenges and opportunities associated with soil health in Hawaii. By establishing a Healthy Soils Program, the state aims to bolster agricultural sustainability, enhance environmental conservation efforts, and contribute to global climate change mitigation goals. The financial appropriation and the acknowledgment of potential expenditure ceiling exceedance reflect the recognition of the critical role soil health plays in the state's overall well-being. If enacted, this legislation has the potential to position Hawaii as a leader in sustainable agriculture, setting an example for other regions grappling with similar challenges.

Mahalo,

Kawika Kahiapo & the Food+ Policy Team #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 2024, the cohort of interns are undergrads and graduate students from throughout the UH System. They are a mix of traditional and nontraditional students, including parents and veterans, who have backgrounds in education, farming, public health, nutrition, and Hawaiian culture.



# TESTIMONY FROM THE DEMOCRATIC PARTY OF HAWAI'I SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

#### **FEBRUARY 2. 2024**

#### **SB 2423, RELATING TO AGRICULTURE**

**POSITION: SUPPORT** 

The Democratic Party of Hawai'i <u>supports</u> SB 2423, which requires the Department of Agriculture to establish a Healthy Soils Program. In 2014, delegates to the Democratic Party of Hawai'i's State Convention adopted resolution ENV 2014-01, which "supports a state policy to promote soil health as a priority in agricultural education and for all agencies responsible for promoting and implementing Hawai'i's agricultural policies and practices."

Soil assessments and practices are essential in improving soil health and building soil carbon stocks. It is imperative that we identify mechanisms for incentivizing practices that build soil health and capture carbon, especially as our state continues to grapple with the climate crisis. We support programs to build our soil structure, enhance nutrient capacity, and strengthen biodiversity. These practices prevent soil erosion by wind and water, which can further preserve air and water quality and have cascading positive impacts in our environment.

Healthy soil is the basis for sustainable communities and intergenerational food security. As experts in soil health have noted, in recent decades we have improved our understanding about the importance of microbial life. As we realize the adverse impacts of industrial practices 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.

In addition to composting, crop rotation, cover-cropping, and other methods of increasing organic health, we should rehabilitate old and previously cleared and graded soils to restore soil biodiversity along with organic content. A well-structured healthy soils program would include qualified soil biologists that may bring new scientific insights about soil ecology into the program, particularly regarding climate regulation, water quality, pollution remediation, food and fiber production, and habitat restoration for organisms above-ground and underwater.

Hawai'i has made numerous commitments to strengthening sustainability and increasing regenerative agriculture activities, which go hand-in-hand. Supporting healthy soil ecosystems is vital in achieving those goals.

Mahalo nui loa,

#### Kris Coffield

Co-Chair, Legislative Committee (808) 679-7454 kriscoffield@gmail.com

#### **Abby Simmons**

Co-Chair, Legislative Committee (808) 352-6818 abbyalana808@gmail.com



# Senate Committee on Agriculture & Environment Hawai'i Alliance for Progressive Action (HAPA) Supports: SB2423

Friday, February 2nd, 2024 1 p.m. Conference Room 224

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

HAPA supports SB2423 which requires the Department of Agriculture to establish a Healthy Soils Program.

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 life<sup>1</sup>, and instead support the biodiversity of insects and microbes that are beneficial to soil health<sup>2</sup>. Healthy soils support more pest and climate change resistant crops.

In addition to important things like composting, crop rotation, cover croping 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.

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

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



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

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 agriculture<sup>4</sup>.

HAPA believes that SB2423 can help to address a range of important issues we face related to degraded and damaged soils, restore and improve soil biodiversity, while also improving the overall quality of our environment and working to sequester carbon. SB660 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Please support SB2423 and healthy soils for Hawai'i.

Thank you for your consideration.

Respectfully,

Anne Frederick
Executive Director

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

<sup>&</sup>lt;sup>4</sup> https://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/nrcs142p2 050947.pdf



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

February 1, 2024

## HEARING BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

## TESTIMONY ON SB 2423 RELATING TO AGRICULTURE

Conference Room 224 & Videoconference 1:00 PM

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

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

**The Hawai** Farm Bureau supports SB 2423, which requires the Department of Agriculture to establish a Healthy Soils Program.

HFB strongly supports the concept of building soil structure and nutrient capacity. Caring for the soil is a cornerstone to having multigenerational farms that continue to provide for the people of Hawai'i. Many of our farms add compost made off-site as well as utilize short-term fallow between crop cycles to increase organic content in their soils. HFB recognizes and supports the diversion of discarded food and other useful wastes away from landfills. The benefits of this and composting are well-known.

Farming is a tough business. High production costs are a major driver of narrow profit margins for Hawai'i's farmers. Land, water, labor, taxes, transportation, utilities, inputs, invasive species, and food safety regulations are all costs of doing business that often result in our farmers just being able to break even. HFB supports this initiative that could reduce the cost of production for local farmers. This is another mechanism that can help locally produced goods compete with imported products, strengthening our local economy.

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

Officers
Kaipo Kekona
State President

Anabella Bruch Vice-President

Maureen Datta Secretary

Reba Lopez Treasurer

Chapter Presidents

Clarence Baber 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

> Mason Scharer Haleakala, Maui

Kaiea Medeiros Mauna Kahalawai, Maui

> Kaipo Kekona Lahaina, Maui

Rufina Kaauwai Molokai

Negus Manna Lāna'i

India Clark North Shore, Oʻahu

Christian Zuckerman Wai'anae, O'ahu

Ted Radovich Waimanalo, Oʻahu

Vincent Kimura Honolulu, Oʻahu

Natalie Urminska Kauai



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

The Hawaii Farmers Union United (HFUU) is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. **HFUU strongly supports and seeks to amend SB2423.** 

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

Kenned S. K. Kebene

Based on previous testimony and review of healthy 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:

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

- (1) Create a healthy soil assessment and education program
- (2) Provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils, and

- (3) operate the healthy soil grants program which shall be funded by the state, with the amount of funding available each year determined by the state legislature;
- (4) Administer existing financial incentives to implement farm management practices that contribute to healthy soils, including §141-16 Compost Reimbursement Program and the Cover Crop Reimbursement Pilot program established by Act 312, SLH 2022.
- (5) Establish other programs to accomplish the purposes of the Healthy Soils Program Act based on the based on the findings of the greenhouse gas sequestration task force established pursuant to section 225P-4.
- (b) In administering the healthy soil assessment and education program, the department shall:
  - (1) work through technical assistance providers or eligible entities to:
    - (a) encourage farmers and ranchers and land managers to undertake voluntary soil health measurements;
    - (b) raise awareness about desirable soil health characteristics;
    - (c) facilitate on-site, producer-led workshops and training sessions to promote and engender soil health stewardship; and
    - (d) complete a baseline soil health assessment by testing the organic matter, water infiltration rate, microbiology and aggregate stability of soils, in addition to analyzing phospholipids and monitoring soil cover;
  - (2) establish a statewide network of champions to promote soil health stewardship, offer guidance to producers and land managers and encourage teamwork;
  - (3) create a program to provide ongoing training in soil health stewardship and workshop facilitation for champions and eligible entities;
  - (4) in collaboration with technical assistance providers, sponsor soil health workshops and training sessions at research centers and learning sites throughout the state; and
  - (5) educate students and the general public about the importance of soil health stewardship.

- (c) In administering the healthy soil grant program, the department shall:
  - (1) award grants to eligible entities to provide technical assistance to producers and land managers in advancing soil health principles and implementing supported methods;
  - (2) award grants as financial assistance to eligible farmers, ranchers, and other land managers who implement soil health practices on their lands.
  - (3) develop a user-friendly grant program application and application and reporting processes;
  - (4) develop criteria for the award of grants; provided that grants shall be awarded equitably and priority may be given to eligible entities serving young producers, veterans, small farms or ranches or for projects that benefit economically or socially disadvantaged communities; and
  - (5) ensure that grant funds are only used to advance soil health and soil health stewardship.
- (d) The department shall encourage producer, land manager, landowner and interagency collaboration in the management of healthy soils and shall:
  - (1) work with technical assistance providers to advance soil health stewardship across private, state, and federal land jurisdictions by fostering collaboration among producers, land managers and landowners; and
  - (2) conduct outreach to producers and land managers to promote the program and other federal, state or local grant opportunities that support and promote healthy soils.
- (e) The department of agriculture shall submit a report detailing the status and progress of the healthy soils program, including the number of grants awarded, the types of soil health practices being implemented, and the benefits to soil health and agricultural productivity, to the legislature no later than twenty days prior to the convening of each regular session."

Based on testimony provided by the Attorney General's office on numerous bills, HFUU aso seeks inclusion of the following language to clarify grant administration:

- (3) Applications for grants shall be made to the department of agriculture and contain such information as the department of agriculture shall require. At a minimum, the applicant shall show:
  - (A) The name of the requesting entity or individual;
  - (B) The purpose for the grant;
  - (C) The service to be supported by the grant;
  - (D) The target group to be benefited;
  - (E) The cost of the grant; and
- (F) That the grant shall be used for activities that are consistent with the purposes of this program;

#### (4) Grants shall only be awarded if:

- (A) The applicant has applied for or received all applicable licenses and permits, when such is required to conduct the activities or provide the services for which a grant is awarded;
- (B) The applicant agrees to comply with applicable federal, state, and county laws;
- (C) The grant is not used for purposes of entertainment or perquisites;
- D) All activities and improvements undertaken with funds received comply with all applicable federal, state, and county statutes and ordinances, including applicable building codes and agency rules; and
- (E) The applicant procures sufficient insurance to provide indemnification if requested to do so by the department of agriculture;

#### (5) To receive a grant, an applicant shall:

#### (A) Be:

- (i) A for-profit entity incorporated under the laws of the State;
- (ii) A nonprofit community-based organization determined to be exempt from federal income taxation by the Internal Revenue Service;
- (iii) A cooperative association; or

- (iv) An individual, who in the department of agriculture's determination, is able to provide the services or activities proposed in the application for a grant;
- (B) In the case of a nonprofit organization, have a governing board whose members have no material conflict of interest and serve without compensation, have bylaws or policies that describe the manner in which business is conducted and policies relating to nepotism and management of potential conflict of interest situations, and not employ or contract with two or more members of a family or kin of the first or second degree of consanguinity unless specifically permitted by the department of agriculture;
- (C) Agree to make available to the department of agriculture all records the applicant may have relating to the operation of the applicant's activity, business, or enterprise to allow the department of agriculture to monitor the applicant's compliance with the purpose of this program; and
- (D) Establish, to the satisfaction of the department of agriculture, that sufficient funds are available for the effective operation of the activity, business, or enterprise for the purpose for which the grant is awarded;

#### (6) Every grant shall be:

- (A) Monitored by the department of agriculture to ensure compliance with this program and the purposes and intent of the grant; and
- (B) Evaluated annually to determine whether the grant attained the intended results in the manner contemplated; and
- (7) Grants made by the department of agriculture under this Act may be made without regard to chapters 103D and 103F, Hawaii Revised Statutes."

Submitted on: 2/1/2024 8:57:31 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Dr Jana Bogs	Testifying for Beyond Organic Consulting, Inc.	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Jana Bogs, PhD

Naalehu, Hawaii

Submitted on: 1/30/2024 6:24:49 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Carrie Brennan	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental, economic, and health benefits by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs. In turn healthy soil makes for healthy crops and makes more healthy people.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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 our people, and working to sequester carbon. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo!

Carrie Brennan, Kapaa

Submitted on: 1/30/2024 6:25:12 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Lisa Lee	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Lisa Lee

Honolulu

<u>SB-2423</u> Submitted on: 1/30/2024 6:25:27 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Thomas Nooney	Individual	Support	Written Testimony Only

#### Comments:

I support this Bill SB2423. Our soil is in desperate need of regeneration & amending after 100 years of Commercial Chemical Agriculture

Submitted on: 1/30/2024 6:58:24 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
KEALA FUNG	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Keala Fung, Honolulu

Submitted on: 1/30/2024 7:16:04 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Lucie Schrager	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Lucie Schrager, 'Ewa

Submitted on: 1/30/2024 7:21:08 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Eliel Starbright	Individual	Support	Written Testimony Only

#### Comments:

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

<u>SB-2423</u> Submitted on: 1/30/2024 8:06:20 PM Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Troy Schacht	Individual	Support	Written Testimony Only

### Comments:

Healthy soil is a foundation for healthy food and climate.

Submitted on: 1/30/2024 9:07:53 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
B.A. McClintock	Individual	Support	Written Testimony Only

#### Comments:

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

<u>SB-2423</u> Submitted on: 1/30/2024 11:28:15 PM Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Marlies Lee	Individual	Support	Written Testimony Only

#### Comments:

We need to grow our food in healthy soil on our islands

Submitted on: 1/31/2024 3:14:25 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Sven Sorge	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Sven Sorge

Submitted on: 1/31/2024 6:24:10 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Noelle Lindenmann	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Noelle Lindenmann, Kailua-Kona

Submitted on: 1/31/2024 8:07:22 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Maki Morinoue	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434.

As a fourth-generation farmer who has not used RoundUp for over 50 years, this could not be more vital. This bill is the foundation of life on land it's self that directly impacts our aquifer and oceans.

Healthy soils provide many environmental and economic benefits by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate-impact resilient and less dependent on costly inputs.

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, soil biodiversity, and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate-change-resistant crops.

SB2423 can help address a range of important issues we face related to degraded and damaged soils, restore and improve soil biodiversity while improving the overall quality of our environment, and work to sequester carbon. SB2423 is therefore not just crucial for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Maki Morinoue Hōlualoa

Submitted on: 1/31/2024 8:24:12 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Ezgi Green	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity, and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate-change-resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Me ke aloha pumehana,

Ezgi Green, Waialua

Submitted on: 1/31/2024 8:30:50 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Susan Stayton	Individual	Support	Written Testimony Only

#### Comments:

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

I am writing as a small Family farmer asking that you please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Mahalo for your consideration!

Susan Stayton, Lawai, Kauai, HI

<u>SB-2423</u> Submitted on: 1/31/2024 10:13:04 AM Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Regina Gregory	Individual	Support	Written Testimony Only

Comments:

support

Submitted on: 1/31/2024 10:13:21 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Jacqueline S. Ambrose	Individual	Support	Written Testimony Only

### Comments:

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Submitted on: 1/31/2024 11:40:46 AM Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Julia Marrack	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Julie Marrack, Kamuela

Submitted on: 1/31/2024 12:40:37 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Morgan Dobbins	Individual	Support	Written Testimony Only

#### Comments:

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

I am writing in support of our state's soil health and of SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

We must provide farmers with education and technical assistance to implement farm management practices that contribute to healthy soils--such as composting of green waste that can be used to replenish soil nutrients-- and issue awards and other financial incentives to implement farm management practices that contribute to healthy soils. I hope some of these funds may also be used to support local hawaiian businesses who work to produce nutrient-dense soil products, such as fish emulsion products, so that they can grow their operations and serve their wider community, leading to healthier soil across the state.

In recent decades we have learned a great deal about the importance of microbial life, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. 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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health.

Mahalo for your consideration and for your service to our state!

Morgan Dobbins, Kapa'a, Kaua'i

Submitted on: 1/31/2024 2:45:47 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Melissa Barker	Individual	Support	Written Testimony Only

#### Comments:

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

I am writing to respectfully ask that you support SB2423, the Healthy Soils Program bill.

Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

SB2423 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. This bill is not only important for our local food production agricultural sector but is good for our local environment.

Thank you for your attention and consideration.

Melissa Barker

Kapaa, HI

Submitted on: 1/31/2024 11:46:29 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Irena Bliss	Individual	Support	Written Testimony Only

#### Comments:

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

I am writing in support of SB2423: Healthy Soils Program.

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

We must provide farmers with education and technical assistance to restore 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, soil biodiversity and the potential for our soil to capture carbon, aiding in mitigating climate change. And in the not very distant past, the Hawaiian ahupua'a system was based on maintaining balance and health of the local ecosystems. It is time to restore a focus on healthy 'āina.

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 life, and instead support the biodiversity of insects and microbes that are beneficial to soil health. Healthy soils support more pest and climate change resistant crops.

SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment. It is time to restore ways of living that truly reflect Aloha 'Āina, Mālama 'Āina and make decisions that will support the sustainable well-being and thriving of all future generations on island.

Mahalo piha for your consideration! Me ke aloha,

Irena Bliss Haʻikū, Maui 96708

Submitted on: 2/1/2024 11:52:46 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Jessica Kuzmier	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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Submitted on: 2/1/2024 11:59:53 AM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Anna Ezzy	Individual	Support	Written Testimony Only

#### Comments:

Aloha Chair Gabbard, Vice Chair Richards, and honorable members of the Committee,

My name is Anna Ezzy and I am a graduate student at the University of Hawai'i at Hilo studying Tropical Conservation Biology and Environmental Science. I am very thankful to have the opportunity to submit testimony in **support of the totality of SB2423: Relating to Agriculture**. This bill establishes the healthy soils program to provide necessary resources and supports for farmers to store carbon in their soils for environmental, economic and social benefits.

Addressing the climate crisis requires realigning agriculture with climate-change adaptation strategies and we should be focusing explicit attention to soils. Currently, 26% of human greenhouse gas emissions are attributed to agriculture, with 61% of these emissions sourced from on-farm practices (Poore & Nemecek 2018). Through SB2423, the Legislature can ensure that farmers receive support for helping Hawai'i build soil carbon stocks and hold state land leaseholders accountable for soil degradation, helping to move local agriculture forward from methods which degrade soil and produce emissions to methods which build soil fertility for generations to come.

Soil conservation is necessary for food security in Hawai'i. Healthy soils are alive and teaming with microscopic organisms which form complex associations with plants, increasing crop resilience to pests, disease and drought. In the face of introduced pests and increasingly extreme climate events like droughts, we need the healthy soils program to ensure local food production into the future.

The long cultural history of agroforestry and other healthy soil practices in Hawai'i and throughout the Pacific means that a healthy soils program has the potential to target social inequities by supporting practitioners of traditional agricultural methods as well. Thank you for the opportunity to submit testimony in support of SB2423 and mahalo for all you do to support Hawai'i farmers in implementing soil-conserving practices.

Mahalo,

Anna Ezzy

Submitted on: 2/1/2024 1:01:26 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
Virginia Tincher	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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.

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SB2423 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. SB2423 is therefore not just important for our local food production agricultural sector but is good for our local environment.

Virginia Tincher

Submitted on: 2/1/2024 1:33:58 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Wes A Stroble	Individual	Support	Written Testimony Only

#### Comments:

My name is Wes Stroble, I am a student at the University of Hawai'i at Manoa, and I have lived in Oahu for sixteen years. I volunteer any free time I have as a working, single father attending school, and a core member of the Surfrider Foundation of Oahu. I am in support of Senate Bill 2423, which would require the Department of Agriculture to establish a Healthy Soils Program.

Growing up on a farm in Washington State, I learned firsthand the importance of soil health. We had a salmon stream running through the yard, and pesticides were forbidden within a certain number of feet from the stream. Over time, those who did not abide by these rules damaged the soil surrounding the stream, and the connected wildlife suffered as a result. My father bought the adjacent land affected by the pesticide use, and it took years to reestablish organic healthy soil to produce crops that did not harm the soil and surrounding foliage.

Bill 2423 provides farmers with education and technical assistance that is vital to cultivating healthy soil. Education is power, and this is a worthwhile expense, at a minimal cost of \$500,000 per year. By offering incentives to local farmers to institute new practices that create healthy soil, we can offset the potential lost revenue farmers would lose by farming organically. The program will also hold the Department of Agriculture responsible for a detailed report on the progress of the Healthy Soils Program regularly. I strongly support Bill 2423. Thank you for your time.

Submitted on: 2/1/2024 8:36:56 PM

Testimony for AEN on 2/2/2024 1:00:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
TJ Sao	Individual	Support	Written Testimony Only

#### Comments:

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

Please support SB2434. Healthy soils provide many environmental and economic benefits, by supporting healthy crops and a productive ag sector, capturing carbon/climate change mitigation, making plants more pest and climate impact resilient and less dependent on costly inputs.

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.

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