

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committee on
WATER AND LAND

Wednesday, January 29, 2020
1:15 PM
State Capitol, Conference Room 229

In consideration of
SENATE BILL 2531
RELATING TO FORESTRY

Senate Bill 2531 proposes to establish a fund to increase the existing plant stocks, invest in public outreach, and renovate the equipment and facilities of the state tree nursery. **The Department of Land and Natural Resources (Department) supports this measure provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request.**

The Department recognizes there is a clear need to increase capacity at the State Tree Nursery as well as our district nurseries to meet the growing demand for seedlings and planting stock to support climate mitigation, carbon neutrality, forest restoration, wildlife habitat improvements, agroforestry development, and diversified agricultural needs. Trees are our strongest allies for addressing the climate crisis, and the most efficient method for removing carbon dioxide- CO2 from the atmosphere, including by direct carbon sequestration and improving soil health.

The Department has identified several necessary nursery improvements and upgrades for the State Tree Nursery, equal to approximately \$1.3 million (details available upon request), as well as additional costs for acquisition of seed material. Further, the Department notes that increasing capacity to meet needs will also require additional personnel resources at each of the Department's nurseries.

Thank you for the opportunity to comment on this measure.

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

ROBERT YU
DEPUTY DIRECTOR

**STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150
HONOLULU, HAWAII 96810-0150

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE SENATE COMMITTEE ON WATER AND LAND
ON
SENATE BILL NO. 2531

**January 29, 2020
1:15 p.m.
Room 229**

RELATING TO FORESTRY

The Department of Budget and Finance offers the following comments on Senate Bill (S.B.) No. 2531.

S.B. No. 2531 establishes the State Tree Nursery Special Fund; and appropriates unspecified amounts of general funds and special funds in FY 21 to expand the availability of tree and plant stocks, expand the capacity of the State Tree Nursery, and invest in public outreach and education on the benefits of trees and plants.

As a matter of general policy, the department does not support the creation of any special fund which does not meet the requirements of Section 37-52.3, HRS. Special funds should: 1) serve a need as demonstrated by the purpose, scope of work, and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining.

In regards to S.B. No. 2531, it is difficult to determine whether the proposed special fund would be self-sustaining since the bill does not specify the sources of revenue for the special fund.

Thank you for your consideration of our comments.

SB-2531

Submitted on: 1/28/2020 11:28:26 AM

Testimony for WTL on 1/29/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Springer Kaye	Testifying for Big Island Invasive Species Committee	Support	No

Comments:

The Big Island Invasive Species Committee strongly supports this measure to increase tree stocks and the overall production capacity of the state tree nursery. In addition to important carbon sequestration and soil health goals of agricultural tree plantings, this added capacity could support demand for trees of many varieties to replace lost `ohi`a in the wake of Rapid Ohia Death. Currently it can be difficult to source a large volume of clean, ready to plant native forest trees for public or private projects. This added capacity would go a long way toward supporting both afforestation and reforestation goals across the state. Mahalo for your support.



HAWAI'I
CENTER FOR
FOOD SAFETY

**Senate Committee on Water and Land
Hawai'i Center for Food Safety supports: SB2531**

Dear Chair Kahele, Vice Chair Keith-Agaran and members of the committee:

My name is Lauryn Rego and I am the Director for the Hawai'i Center for Food Safety (CFS). CFS is a nationwide public interest, sustainable agriculture nonprofit organization whose missions include the promotion of agricultural production methods that are beneficial to the ecosystem. We have over 950,000 farmer and consumer members across the country, including nearly 14,000 in Hawai'i. On behalf of CFS and our members, I thank you for the opportunity to submit testimony today regarding this important bill.

I am writing in strong support of SB2531, related to forestry. It is well established that agriculture contributes roughly 1/3 of greenhouse gas emissions globally. However, unlike other sectors like energy and transportation, agriculture also has the potential to sequester carbon emissions in terrestrial ecosystems. As noted in SB2531, trees have an important function in improving soil health and building climate-resiliency for Hawai'i's environment, including its agricultural landscapes. The Natural Resources Conservation Service (NRCS), a division of the United States Department of Agriculture, has identified agroforestry as a unique land management approach that intentionally blends agriculture and forestry to enhance productivity, profitability, and environmental stewardship. According to NRCS, the strategic planting of trees in agriculture landscapes may increase crop yield, improve soil health, provide habitat for wildlife, and provide a variety of other benefits.¹

CFS supports SB2531, to increase the availability of tree stocks for agroforestry and soil health in the State by expanding the tree and plant stock available to the public through the state tree nursery, and provide assistance and education regarding the benefits of trees in the agricultural setting. A variety of NRCS Conservation Practice Standards are recommended to implement agroforestry practices in Hawai'i, including alley cropping, multi-story cropping, riparian forest buffers, silvopasture establishment, windbreak establishment, and windbreak restoration.² The support and implementation of these agroforestry practices can play an effective role in increasing Hawai'i's food sovereignty, as well as our food and climate security.

¹ NRCS, Sustaining Agroforestry Systems for Farms and Ranches, <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/forestry/sustain/>

² NRCS, Agroforestry, <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/wa/technical/ecoscience/agronomy/?cid=nrcseprd1178607>

NATIONAL HEADQUARTERS
660 Pennsylvania Avenue, SE, Suite 302
Washington, D.C. 20003
T: 202-547-9359 F: 202-547-9429

CALIFORNIA OFFICE
303 Sacramento Street, 2nd Floor
San Francisco, CA 94111
T: 415-826-2770 F: 415-826-0507

PACIFIC NORTHWEST OFFICE
917 SW Oak Street, Suite 300
Portland, OR 97205
T: 971-271-7372 F: 971-271-7374

HAWAI'I OFFICE
1132 Bishop Street, Suite 2107
Honolulu, Hawaii 96813
T: 808-681-7688

office@centerforfoodsafety.org

centerforfoodsafety.org

Respectfully,

A handwritten signature in black ink on a light gray background. The signature is stylized and cursive, appearing to read 'Lauryn Rego'.

Lauryn Rego
Director, Hawai'i Center for Food Safety



SIERRA CLUB OF HAWAI'I

LATE

SENATE COMMITTEE ON WATER AND LAND

January 29, 2020 1:15 PM Room 229

In **SUPPORT** of **SB2531**: Relating to Forestry

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

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **supports SB2531**, which funds the Department of Land and Natural Resource's state tree nursery to increase and expand plant species that will improve soil health and agricultural productivity. Support for practices that foster healthy soils is a priority of the Sierra Club during the 2020 legislative session.

Improved soil health is good for agriculture

The United States Department of Agriculture affirms that managing soil health is "one of the most effective ways for farmers to increase crop productivity and profitability while improving the environment." Both small and large producers who implement practices to improve soils see benefits such as increased crop production from encouraging soils rich in organic matter and nutrients, increased profit from optimizing inputs by reducing the need for fertilizers, pesticides, and water, and reduced farm labor and machinery fuel expenses.¹

Improved soil health benefits the climate

Studies from the Intergovernmental Panel on Climate Change show that agriculture, forestry, and other types of land use account for 23% of human greenhouse gas emissions, making it a significant contributor to the climate crisis. At the same time, natural land processes absorb carbon dioxide equivalent to almost a third of carbon dioxide emissions from fossil fuels and industry practices.² Modern agricultural practices can be improved to harness the natural power of photosynthesis in plants to actually pull carbon from the atmosphere and sequester it in the ground.

Planting trees can improve soil health

This bill supports the state tree nursery, which can protect and regenerate healthy soils through the cultivation of the following beneficial species for agricultural production:

1. Windbreaks: trees that are placed in single or multiple rows that minimize soil erosion and shelter crops from wind damage.
2. Nitrogen-fixing: trees that reduce or eliminate the need for nitrogen fertilizers, which

¹ <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/>

² https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource_srccl/

produce a major source of the potent greenhouse gas nitrous oxide.

3. Overstory: shade trees that provide habitat and increase biodiversity on agricultural lands, supplying ecosystem services of use for agricultural production and improved ecosystem function.

We support this bill and recommend a few amendments that would:

1. Remove the creation of a “State Tree Nursery Special Fund” and instead appropriate general funds to the Department of Land and Natural Resource Division of Forestry and Wildlife’s existing State Tree Nursery Program. Because there is already an existing program within the Department, it seems unnecessary to create a special fund for increasing tree stocks for soil health and agricultural benefits.
2. Specify that the United States Department of Agriculture Natural Resource Conservation Service should be a consulted stakeholder. This federal program has expertise in types of tree species that are beneficial for healthy soils and in 2012 published a “Pacific Islands Area Vegetative Guide” which provides lists of plants suitable for various conservation practices relating to improved soil health.³

Soils are a highly effective means of carbon sequestration, but most agricultural soils have had their carbon sequestration capacity dramatically reduced by soil loss, excessive tillage, overgrazing, erosion, and extensive use of fertilizers. Protecting and regenerating healthy soils can help to mitigate the effects of climate change, while also supporting local agricultural production and ecosystem resiliency. We see expansion of the State Tree Nursery as an important tool to achieve these goals.

Thank you very much for this opportunity to provide testimony in **support of SB2531**.

Mahalo,



Jodi Malinoski, Policy Advocate

³ https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/hipmstn14436.pdf

LATE

SB-2531

Submitted on: 1/28/2020 2:07:48 PM

Testimony for WTL on 1/29/2020 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gary Hooser	Individual	Support	No

Comments:

This testimony is in strong support.

As stated in the bills purpose clause: Trees have an important function in improving soil health and building climate-resiliency for Hawai'i's environment, including its agricultural landscapes. The Natural Resources Conservation Service, a division of the United States Department of Agriculture, has identified agroforestry as a unique land management approach that intentionally blends agriculture and forestry to enhance productivity, profitability, and environmental stewardship.

According to the Natural Resources Conservation Service, the strategic planting of trees in agriculture landscapes may increase crop yield, improve soil health, provide habitat for wildlife, and provide a variety of other benefits.

The division of forestry and wildlife of the department of land and natural resources manages a state tree nursery that aims to provide high-quality native, endangered and windbreak trees and plants for the public and department of land and natural resources plantings and reforestation projects.

There is a need to update and expand the resources available to the state tree nursery, including increasing the available selections of trees and plants that provide beneficial functions in agricultural production.

It is important for Hawaii to take action now to increase the availability of tree stocks for agroforestry and soil health in the State by expanding the tree and plant stock available to the public through the state tree nursery.

Gary Hooser