



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō‘ike Mana‘o I Mua O Ka ‘Aha‘ōlelo

Testimony Presented Before the
House Committee on Agriculture & Food Systems
February 5, 2025 at 9:30 a.m.

By

Parwinder Grewal, Dean
College of Tropical Agriculture and Human Resilience
And

Michael Bruno, Provost
University of Hawai‘i at Mānoa

HB 1184 – RELATING TO CONTROLLED-ENVIRONMENT AGRICULTURE

Chair Kahaloa, Vice Chair Kusch, and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 1184 relating to controlled-environment agriculture. The bill authorizes the issuance of general obligation bonds and appropriates funds for the development of a controlled-environment agriculture (CEA) research and demonstration facility at the Magoon research and teaching site in Mānoa, ‘Oahu.

A \$6 million investment is needed to build and start the 5,000-square-foot CEA Innovation Farm at CTAHR with commercial production, research and teaching capabilities. CEA offers a viable solution by enabling year-round food production with higher yields with less land, water, fertilizer, and pesticides, and greater resilience against natural disasters posed by climate change. CTAHR in collaboration with the UH College of Engineering and MetroGrow, will build the CEA Innovation Farm that will produce food for the Hawai‘i Department of Education’s Regional Kitchens and develop, test, and demonstrate innovations in adaptive infrastructure and technology, precision agriculture and data driven controls, germplasm development and pest management, and commercial demonstration and workforce development.

We respectfully offer the following amendments: SECTION 1., lines 7-8 and SECTION 2., lines 6-7 to correct the name of the college to university of Hawaii at Manoa college of tropical agriculture and human [resources] resilience (CTAHR). The renaming of the college was approved in October 2024 to better align CTAHR’s name to its land-grant mission of improving the human condition and human use of natural resources through research, education and Cooperative Extension.

We support HB 1184 with the amendment provided that its passage does not replace or adversely impact priorities as indicated in our BOR Approved Budget. Thank you for the opportunity to submit testimony.

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

DEAN M. MATSUKAWA
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 5, 2025
9:30 am
CONFERENCE ROOM 325

SENATE BILL NO. 1184
RELATING TO CONTROLLED-ENVIRONMENT AGRICULTURE.

Chair Kahaloe, Vice Chair Kusch and Members of the Committee:

Thank you for the opportunity to provide testimony on House Bill No. 1184 that authorizes the issuance of general obligation bonds and appropriates funds for the development of a controlled-environment agriculture research and demonstration facility at the Magoon research and teaching site in Manoa, Oahu. The Department of Agriculture (Department) offers comments and otherwise defers to the University of Hawaii.

The Department supports proof-of-concept for agricultural technology applications and the opportunity to determine under what circumstances the use of controlled-environment agriculture would pencil out for a farmer entrepreneur.

Thank you for the opportunity to present our testimony.





January 31, 2025

Representative Kirstin Kahaloa, Chair
Representative Matthias Kusch, Vice Chair
House Committee on Agriculture & Food Systems

Testimony in Support of HB 1184, Relating to Controlled Environment Agriculture (Authorizes the issuance of general obligation bonds and appropriates funds for the development of a controlled-environment agriculture [CEA] research and demonstration facility at the University of Hawaii [UH] College of Tropical Agriculture and Human Resources [CTAHR] Magoon research and teaching site.)

Wednesday, February 5, 2025, 9:30 a.m.;
Conference Room 325; Via Videoconference

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers, and utility companies. LURF's mission is to advocate for reasonable, rational, and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express its **support of HB 1184.**

HB 1184. The purpose of this bill is to authorize the issuance of general obligation bonds and appropriate funds to establish a CEA research and demonstration facility at the UH CTAHR Magoon Research and Teaching site to further the objectives of the College, including successfully fulfilling its mission to pursue more agricultural research; supporting the agricultural industry through current challenges; and connecting research to agricultural stakeholders and practitioners through education, and farming opportunities.

LURF's Position. LURF understands that ongoing outreach and research performed by UH CTAHR for Hawaii's farmers, ranchers, and other agricultural stakeholders have heretofore been vital in assisting to develop and improve technologies for these industries which rely on the ongoing programs for success of their operations.

The performance of such significant work by UH CTAHR has been, and continues to be relied upon by Hawaii's farmers and ranchers who believe that the research and outreach efforts of CTAHR are critical to their industries, and have helped to develop and improve agricultural technologies essential to their success, however, a clear need and demand exists for the State to develop a comprehensive approach to CEA and to build a state of the art CEA research and demonstration facility.

Authorization of the issuance of general obligation bonds and appropriate funding is therefore needed to establish and construct a commercial-scale, indoor CEA production facility with research and teaching capabilities at the UH CTAHR Magoon Research and Teaching Site in Manoa. The primary objective of the facility and associated programs would be to serve as a platform for research, extension, education and demonstration activities at commercial scale to develop the next generation of agricultural researchers, practitioners, and industry leaders.

In view of the critical workforce shortage and challenges being faced by Hawaii's farmers and ranchers, more research, outreach, and support is necessary to assist them, and to avoid damage to the profitability and long-term sustainability of local agricultural production industries.

For the above reasons, LURF **supports HB 1184** and respectfully urges your favorable consideration.

Thank you for the opportunity to present testimony regarding this measure.



**HOUSE OF REPRESENTATIVES
THE THIRTY-THIRD LEGISLATURE
REGULAR SESSION OF 2025**

COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

**Rep. Kirstin Kahaloe, Chair
Rep. Matthias Kusch, Vice Chair**

**Rep. Nicole E. Lowen
Rep. Sean Quinlan
Rep. Amy A. Perruso
Rep. Gene Ward**

**Wednesday, February 5, 2025 9:30 AM
Conference Room 325 & Videoconference
State Capitol
415 South Beretania Street**

**RE: HB 1184 – RELATING TO CONTROLLED-ENVIRONMENT
AGRICULTURE.**

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

**The Hawaii Floriculture and Nursery Association (HFNA) SUPPORTS
House Bill 1184**

We support research by the University of Hawaii to help improve agriculture and prepare the agriculture industry for the trials of the future. A controlled-environment agriculture research and demonstration facility is a good investment for Hawaii and Agriculture.

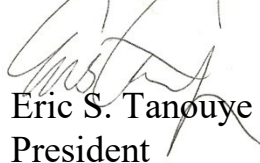
This facility will give CTAHR the ability to be more productive in producing food and agriculture products. A control environment will raise expertise in CTAHR and help through extension raise the expertise of the



industry. And finally, this helps the students gain valuable experiences and prepares them for future jobs. In all, this will raise the level of agriculture in Hawaii.

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

Supporting Agriculture and Hawaii,



Eric S. Tanouye
President

Hawaii Floriculture and Nursery Association



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State President

Anabella Bruch
Vice-President

Maureen Datta
Secretary

Reba Lopez
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Fawn Helekahi-Burns
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Moloka'i

Negus Manna
Lāna'i

India Clark
North Shore, O'ahu

Christian Zuckerman
Wai'anae, O'ahu

Ted Radovich
Waimānalo, O'ahu

Vincent Kimura
Honolulu, O'ahu

Natalie Urminska
Kaua'i

Aloha Chair Kahaloa, Vice Chair Kusch, and Members of the House Agriculture & Food Systems Committee,

The Hawai'i Farmers Union 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 HB1184.**

HB1184 holds promise to enhance the agricultural sector in Hawaii by fostering innovation through the establishment of a controlled-environment agriculture (CEA) research and demonstration facility. By anchoring this facility at the Magoon research and teaching site, the state not only commits to broadening the scientific and practical understanding of CEA but also bolsters the training of future farmers, scientists, and researchers.

However, the high capital investment required for CEA technologies can be prohibitive for Hawaii's small and mid-sized farms. Therefore, the focus of research should include cost-effective solutions and scalable models that these farms can feasibly implement. By prioritizing approaches that reduce initial setup costs and optimize energy and resource efficiency, this facility can play a pivotal role in democratizing access to CEA innovations. By doing so, it will effectively equip our local farmers with tools to increase productivity, reduce dependence on imports, and enhance food security across the islands, all while promoting resilience and sustainability within the agricultural sector.

Mahalo for the opportunity to testify.

Hunter Heavilin
Advocacy Director
Hawai'i Farmers Union



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 5, 2025

HEARING BEFORE THE
HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

TESTIMONY ON HB 1184
RELATING TO CONTROLLED-ENVIRONMENT AGRICULTURE

Conference Room 325 & Videoconference
9:30 AM

Aloha Chair Kahaloe, Vice-Chair Kusch, 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 1184, which authorizes the issuance of general obligation bonds and appropriates funds for the development of a controlled-environment agriculture research and demonstration facility at the Magoon research and teaching site in Manoa, Oahu.

A demand exists to address the need for a comprehensive approach to controlled-environment agriculture (CEA) and building a state-of-the-art CEA research and demonstration facility. Controlled-environment agriculture (CEA) technologies—such as hydroponics, aquaponics, aeroponics, and vertical farming—offer efficient, sustainable, and climate-resilient solutions for food production in Hawaii. A dedicated research and demonstration facility will provide a hub for agricultural innovation, allowing scientists and farmers to test and refine new growing techniques, water conservation strategies, and energy-efficient production systems.

The demand for high-tech agricultural skills is growing, and this research facility will support workforce development in precision agriculture, automation, and alternative farming methods. It will also optimize indoor and greenhouse-based agriculture, helping farmers produce more food in less space while reducing vulnerability to weather, pests, and land availability constraints. The facility can encourage entrepreneurship and investment in local agribusinesses by demonstrating scalable and commercially viable CEA models.

The Magoon site is an established research and teaching hub at the University of Hawaii, making it an ideal location for integrating agricultural research, workforce training, and industry collaboration. It has a long history of supporting agricultural research, education, and extension programs at the University of Hawaii. Establishing a CEA research and demonstration center at Magoon will leverage its existing infrastructure, faculty expertise, and student engagement to expand practical agricultural education.

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

HB-1184

Submitted on: 1/31/2025 2:17:40 PM

Testimony for AGR on 2/5/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Theresa M Thompson	Individual	Support	Written Testimony Only

Comments:

I support HB 1184 RELATING TO CONTROLLED-ENVIRONMENT AGRICULTURE.

Mahalo,

Theresa Thompson