

ON THE FOLLOWING MEASURE: H.B. NO. 1185, RELATING TO AGRICULTURE.

BEFORE THE:

HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

DATE: Wednesday, February 5, 2025 TIME: 9:30 a.m.

LOCATION: State Capitol, Room 325

TESTIFIER(S): Anne E. Lopez, Attorney General, or Candace J. Park, Deputy Attorney General

Chair Kahaloa and Members of the Committee:

The Department of the Attorney General provides the following comments.

This bill establishes within the University of Hawaii at Manoa College of Tropical Agriculture and Human Resources a plant-based building materials working group to study and report on how best to grow plants and develop plant-based building materials in Hawaii. The bill also appropriates funds for this purpose.

Article X, section 6, of the Hawai'i Constitution gives the Board of Regents of the University of Hawai'i "exclusive jurisdiction over the internal structure, management, and operation of the university." Section 6 further provides: "This section shall not limit the power of the legislature to enact laws of statewide concern. The legislature shall have the exclusive jurisdiction to identify laws of statewide concern." If the Committee decides to pass this bill, we recommend an amendment that adds a statement identifying this bill as a law of statewide concern.

Thank you for the opportunity to provide these comments.

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 & FOOD SYSTEMS

WEDNESDAY, FEBRUARY 5, 2025 9:30 AM CONFERENCE ROOM 325

HOUSE BILL NO. 1185 RELATING TO AGRICULTURE

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

Thank you for the opportunity to testify on House Bill 1185. This bill aims to establish a plant-based building materials working group to study and report on how best to grow plants and develop plant-based building materials in Hawai'i. The Department of Agriculture (Department) appreciates this initiative, led by UH-CTAHR, and offers its support.

The Department recognizes that certain local plant-based materials have the potential to be processed into structural building materials for use in Hawai'i. Some of these building materials offer advantageous properties, such as increased strength, flexibility, and reduced weight compared to conventional steel or wood. Should the discussion include the introduction of plant varieties new to the state, the Department requests language be added that any new plant-based construction materials be submitted to the Plant Quarantine Branch to confirm the variety is not considered an invasive or a potential threat to existing flora and fauna.

Thank you for the opportunity to testify on this measure.



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Kaiea Medeiros Mauna Kahālāwai, Maui

> Kaipo Kekona Lahaina, Maui

Kilia Avelino-Purdy Moloka'i

> Negus Manna Lāna'i

India Clark North Shore, Oʻahu

Christian Zuckerman Wai'anae, Oʻahu

Ted Radovich Waimānalo, Oʻahu

Vincent Kimura Honolulu, Oʻahu

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 HB1185.**

HB1185 presents an innovative and sustainable approach towards enhancing Hawaii's agricultural and construction sectors by establishing a Plant-based Building Materials Working Group. This initiative promises to explore the untapped potential of growing plants specifically for developing environmentally-friendly building materials. Such a would advance agricultural diversification and reduce our reliance on imported, non-renewable construction resources. By focusing on plant-based materials, Hawaii can bolster its agricultural industry, stimulate local economies, and promote sustainable practices that align with the state's commitment to environmental stewardship.

Mahalo for the opportunity to testify.

Hunter Heaivilin Advocacy Director Hawai'i Farmers Union





To: The Honorable Chair Kristen Kahaloa, the Honorable Vice Chair Matthias Kusch, and Members of the Committee on Agriculture and Food Systems.

From: Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing HB1185 RELATING TO AGRICULTURE.

Hearing: Wednesday February 5, 2025, 9:30 a.m., room 325

Aloha Chair Kahaloa, Vice Chair Kusch, and Members of the Committee on Agriculture and Food Systems!

The Hawai'i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii's coral reefs and ocean. The mission of the Climate Protectors Hawai'i is to educate and engage the local community in climate change action, to help Hawai'i show the world the way back to a safe and stable climate.

The Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i STRONGLY SUPPORT HB1185!

Hawaii can use **plants** to develop a **home-grown building materials industry**, with **agricultural** and production **green jobs**, while sequestering carbon to **mitigate climate warming**!

Most of Hawaii's building materials are shipped to Hawaii from the continents at great expense. Much of the money that is leaving Hawaii would stay if we could **produce building materials here instead of importing lumber, steel, and other building materials.**

Hawaii's climate, with a year-round growing season and ample rain in many areas, has advantages for growing various crops that can be processed into structural plant-based building materials. For example,

- There are types of **clumping bamboo** that can grow very rapidly with sufficient water. Bamboo is a grass; when cut, it simply regrows, whereas trees used for timber die and have to be replanted. Clumping bamboo can be processed into building materials that are more flexible and lighter than timber or steel and be made more fire- and termite-resistant than wood. Bamboo has a tensile strength by weight that exceeds steel. In addition, bamboo can be used to produce a wide range of construction material, from flooring and paneling to structural support and roofing.
- "**Hempcrete**", developed from industrial hemp, can substitute for concrete building blocks, with weather-resistant durable materials.
- "**Biocement**" is a calcium carbonate material produced by microbes that can substitute for Portland cement. It can be produced from cyanobacteria (blue-green algae or "pond scum").

Green jobs would be created for growing plants and producing building materials here in Hawaii.

Bamboo and other plant-based building materials would **help Hawaii meet its net negative greenhouse gas emissions goal** because they sequester carbon, whereas production of traditional building materials such as timber, steel, and cement emit very large amounts of greenhouse gases.

The purpose of this bill is to establish and appropriate funds for a working group to study and report on how best to grow plants and develop a plant-based building materials industry here in Hawaii.

Please pass this bill!

Mahalo!

Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i (by Ted Bohlen)



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February 5, 2025

HEARING BEFORE THE HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

TESTIMONY ON HB 1185 RELATING TO AGRICULTURE

Conference Room 325 & Videoconference 9:30 AM

Aloha Chair Kahaloa, 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 1185, which establishes a Plant-Based Building Materials Working Group to study and report on how best to grow plants and develop plant-based building materials in Hawai 'i. This bill also appropriates funds to support the working group's efforts.

Hemp, bamboo, and other plant-based building materials are fast-growing, renewable resources with a lower environmental footprint compared to traditional construction materials like concrete and steel. These materials have the potential to reduce greenhouse gas emissions and waste while supporting Hawai'i's sustainability and climate resiliency goals.

Plant-based construction materials such as hempcrete, bamboo panels, and fiberreinforced composites are lightweight, durable, and energy-efficient. Encouraging the development of these materials in Hawai'i would help reduce reliance on imported building supplies, lower shipping costs, and provide opportunities for local farmers to cultivate high-value crops that support both agriculture and the construction industry.

Establishing a working group to assess how best to grow and develop plant-based building materials is a critical step toward diversifying Hawai'i's agricultural sector, promoting innovation, and supporting the state's housing and sustainability goals.

We encourage the working group to:

- Ensure that farmers and agricultural stakeholders are included in discussions on crop selection, processing infrastructure, and economic viability.
- Evaluate potential barriers to commercial-scale production, including regulatory, processing, and market challenges.
- Coordinate with existing research institutions and industry experts to develop best practices for growing and processing plant-based building materials in Hawai'i's unique climate.

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

<u>HB-1185</u>

Submitted on: 1/31/2025 2:18:53 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 1185 RELATING TO AGRICULTURE.

Mahalo,

Theresa Thompson

HOUSE COMMITTEE ON AGRICULTURE AND FOOD SYSTEMS Hearing on Feb. 5, 2025 at 9:30 am

SUPPORTING HB 1185

My name is John Kawamoto, and I support this bill.

About 85% of Hawaii's building materials are imported. Concrete, steel, lumber, and other building materials are shipped to Hawaii from the mainland and elsewhere. If Hawaii could develop a home-grown building material industry, much of the money that is leaving Hawaii to purchase imported building material would stay in Hawaii. At the same time, green agriculture jobs would be created.

Hawaii's climate, with a year-round growing season and ample rain in many areas, has advantages for growing various crops that can be processed into structural plant-based building materials.

For example, bamboo can be harvested and replanted much more quickly than traditional lumber, making it a highly sustainable option for construction. Bamboo has a higher compressive strength than wood, brick, or concrete and a tensile strength that rivals steel. In addition, bamboo can be used to produce a wide range of construction material, from flooring and paneling to structural support and roofing.

Furthermore, bamboo and other plant-based building materials would help Hawaii meet its net negative greenhouse gas emission goal because they sequester carbon, whereas production of traditional building materials such as timber, steel, and cement emit very large amounts of greenhouse gases.

This bill would create a working group to examine the potential for developing a plantbased building material industry in Hawaii.

I urge the committee to pass this bill.

HB-1185 Submitted on: 1/31/2025 9:08:18 PM Testimony for AGR on 2/5/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Stephanie Skow	Individual	Support	Written Testimony Only

Comments:

My name is Stephanie Skow and I support this bill.

Bamboo building materials, Hempcrete blocks, Biocements = Made in America, Made in Hawaii!

About 85% of Hawaii's building materials are imported. Concrete, steel, lumber, and other building materials are shipped to Hawaii from the mainland, Canada, and elsewhere. Local agriculture jobs would be created with plant-based building materials.

Bamboo can be harvested and replanted much more quickly than traditional lumber, making it a highly sustainable option for construction. Bamboo has a higher compressive strength than wood, brick, or concrete and a tensile strength that rivals steel. Bamboo can also be made more fire- and termite-resistant than wood. It's used to produce a wide range of construction materials, from flooring and paneling to structural support and roofing.

"Hempcrete" developed from industrial hemp can substitute for building blocks. Biocements can substitute for Portland cement, which is a huge emitter of greenhouse gases worldwide. Biocements can be produced from several sources including cyanobacteria, a blue-green algae also known as "pond scum."

This bill would create a working group to examine the potential for developing a plant-based building material industry in Hawaii.

I urge the committee to pass this bill.

<u>HB-1185</u>

Submitted on: 2/1/2025 9:01:59 AM Testimony for AGR on 2/5/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Gordon LaBedz	Individual	Support	Written Testimony Only

Comments:

Strong Support!

This bill will investigate the possiblities of new agriculture and industry for Hawaii. Plants like bamboo and hemp are far more sustainable than destroyng native forests for construction of buildings. Hawaii is a perfect place to grow these sustainable products.