



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Ways and Means
Thursday, March 30, 2023 at 10:05 a.m.

By

Anna Wieczorek, Interim Dean
College of Tropical Agriculture and Human Resources

And

Michael Bruno, Provost
University of Hawai'i at Mānoa

HB 306 HD2 – RELATING TO ORNAMENTAL GINGER

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Senate Committee on Ways and Means:

Thank you for the opportunity to provide testimony in support of HB 306 HD2 which provides funding to continue studying the diseases affecting ornamental ginger on O'ahu and the neighbor islands.

Ornamental ginger is a valued plant that can be used as a shrub or as a cut flower. The College of Tropical Agriculture and Human Resources' scientists have been able to identify three different viruses and one fungal pathogen that are infecting ornamental ginger. In addition, the Hawai'i Department of Agriculture (HDOA) experts have established the existence of fourteen additional pathogens.

What has been achieved so far is as follows:

- The islands of O'ahu, Kaua'i, Maui and Hawai'i have been surveyed multiple times in order to document the magnitude and spread of the decline. This has resulted in the discovery of two new viruses never before identified.
- Symptoms have been characterized based on visual identification and genetic sequencing. Symptom categorization has been presented to stakeholders.
- Virus-free plants have been identified and a quarantine facility was built to house them at Komohana Research and Extension Center.
- Virus-free plants were given to Hawai'i Agriculture Research Center, who received a small amount of funding to trial tissue culture experiments.
- The impact of co-infection by two dominant viruses is being investigated.
- Vectors of the viruses are being investigated. While not definitive, mealy bugs and aphids are suspected. More investigation is required.
- It is still unclear which viruses, and how the presence of co-infections can explain the dieback. More investigation is required.

- An Extension publication was produced outlining the current information and the research publication is ready for submission.
- Outreach efforts with HDOA and industry groups continue. More is required.

We respectfully request that the appropriation in the original version of the bill be restored to support the following budget which would promote a better understanding and mitigation of the disease.

Budget Item	Year 1	Year 2	TOTAL
Mileage (Mileage is required for farm visits, average farm travel is 50 miles round trip. This would fund 8 farm visits a month at the current mileage rate of .655.)	\$ 3,200	\$ 3,200	\$ 6,400
Travel (Principal Investigator will be required to perform lab work at UH Manoa campus, this requires overnight travel. Graduate Student hire will be required to travel to neighbor islands to perform research and outreach.)	16,400	16,400	32,800
Tissue Culture Lab Fees (Fees are required for mass propagation of red ginger. Labs to be utilized to be determined.)	38,500	38,500	77,000
Supplies (Supplies include lab supplies, supplies for graduate student research and insect exclusion houses for virus free production.)	15,380	15,380	30,760
Student Hire (Student hire required to carry out research and extension objective, 6 hours a week.)	10,560	10,560	21,120
Graduate Student Hire (Graduate student hire required to perform research on virus spread in virus free fields and virus free production.)	40,960	40,960	81,920
	\$125,000	\$125,000	\$250,000

Thank you for the opportunity to submit testimony in support of HB 306 HD2 provided that its passage does not replace or adversely impact priorities as indicated in our Board of Regents Approved Budget.

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

State of Hawai'i
DEPARTMENT OF AGRICULTURE
KA 'OIHANA MAHI'AI
1428 South King Street
Honolulu, Hawai'i 96814-2512
Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON WAYS AND MEANS

MARCH 30, 2023
10:05 AM
CONFERENCE ROOM 211

HOUSE BILL NO. 306, HD 2
RELATING TO ORNAMENTAL GINGER

Chairperson Dela Cruz and Members of the Committees:

Thank you for the opportunity to testify on House Bill 306, House Draft 2 relating to ornamental ginger. This bill appropriates funds for statewide research into ornamental ginger pathogens, prevention of the spread of ornamental ginger pathogens, production and distribution of pathogen-free plants and outreach to ornamental ginger growers. The department strongly supports this bill and offers the following comments.

Commercial production of ornamental ginger has been in decline for several years. In 2018. A team from the College of Tropical Agriculture and Human Resources (CTAHR), the Hawaii Farm Bureau and HDOA did site visits. CTAHR virologists identified three plant viruses affecting and the HDOA Pathology Unit of the Plant Pest Control Branch, working with the US Department of Agriculture's National Identification Services (NIS) identified 12 other diseases including fungal and bacterial pathogens. The Department dedicated funding through a contract (Contract number 67623) for



delimiting the distribution of the viral diseases, associate the viral symptoms with viral infections and the effects of multiple viral infections, identify viral vectors, and determine the cause of decline of ornamental ginger. Subsequent to this funding support to the University in 2019, the Plant Pest Control Branch lost the Plant Pathologist responsible for supporting this work through retirement and the position was subsequent deleted by the Legislature during the 2021 session.

The Department supports the allocation of funds for the University. This support will be vital for the industry to reverse its negative growth trend and thrive through the development of virus-free ginger plants, mass-production of virus-free plants, improve diagnostics and better management techniques.

Thank you for the opportunity to provide testimony on this bill.



Aloha committee members,

My name is Arwen Revere and I'm a high school student from Kailua and a member of the environmental organization Wild Kids, whom I am representing today. Wild Kids is in strong support of HB306. Ornamental ginger is a popular landscaping plant in Hawaii due to its attractive flowers and foliage. However, like many plants, it is susceptible to diseases caused by pathogens such as bacteria, viruses, and fungi. Researching and preventing ornamental ginger pathogens is crucial in Hawaii due to several reasons. First, Hawaii has a high level of biodiversity and a unique ecosystem that is vulnerable to invasive species. Ornamental ginger pathogens can spread quickly and damage other native plant species, disrupting the delicate balance of our ecosystems.

Researching and preventing the spread of ornamental ginger pathogens is crucial in Hawaii to protect the state's unique ecosystem, economy, and cultural heritage. By implementing effective prevention and management strategies, we can ensure the continued success of the ornamental ginger industry and safeguard the delicate balance of Hawaii's ecosystem.

As a representative of the young people of Hawai'i, I ask you to please protect our environment for the next generation.

Thank you for hearing our testimony.

Arwen Revere, on behalf of Wild Kids



March 28, 2023

Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair
Senate Committee on Ways and Means

Testimony in Support of HB 306, H.D. 2, Relating to Ornamental Ginger (Appropriates funds for statewide research into ornamental ginger pathogens, prevention of the spread of ornamental ginger pathogens, production and distribution of pathogen-free ornamental ginger plants, and outreach to ornamental ginger producers. Effective 6/30/3000.)

**Thursday, March 30, 2023; 10:05 a.m.
State Capitol, Conference Room 211 & 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 306, H.D. 2.**

HB 306, H.D. 2. This bill proposes to make an appropriation to the University of Hawaii (UH) for statewide research of pathogens affecting ornamental ginger and prevention of pathogen spread.

LURF's Position. Invasive species such as insects, disease-bearing organisms, snakes, weeds, and other pests pose the greatest threat to Hawaii's economy, tourism, agriculture, the natural environment, native species and to the health and lifestyle of Hawaii's people.

Invasive species already cause millions of dollars in crop losses, the extinction of native species, the destruction of native wet, moist, and dry land forests, and the spread of disease, but even more harmful viral, fungal, and bacterial pathogens, including two viruses never before identified, are causing devastating crop decline in ornamental ginger most prevalently on Oahu and Hawaii Island, but threaten to invade all of the

Hawaiian Islands and wreak further damage. LURF understands that virus-infected plants cannot be cured and are currently the main plants being propagated for more plantings, thus worsening the problem, and that most large-scale operations have virus-infected plants.

Despite efforts by the UH college of tropical agriculture to study and address this critical situation, more statewide research and a multi-agency outreach approach is necessary to avoid further damage to the profitability and long-term sustainability of local ornamental ginger, as well as other flora and landscape production industries.

For the above reasons, LURF **supports HB 306, H.D. 2** and respectfully urges your favorable consideration.

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



THE SENATE
KA 'AHA KENEKOA

THE THIRTY-SECOND LEGISLATURE
REGULAR SESSION OF 2023

COMMITTEE ON WAYS AND MEANS
Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair

Thursday, March 30, 2023, 10:05 AM
Conference Room 211 & Videoconference
State Capitol
415 South Beretania Street

RE: HB306 HD2 RELATING TO ORNAMENTAL GINGER

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 300 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) **STRONGLY SUPPORTS House Bill 306 HD2**

Ornamental ginger is a popular tropical flower that could be considered to be a symbol of the beauty of Hawaii. For our Nurserymen and women to continue to grow and provide this product it is important we find solutions to the pathogens that threaten the ornamental ginger and avoid the spreading of these viruses to growers statewide. Currently there is no cure for infected plants and the best option would be to have virus free gingers available for our industry.

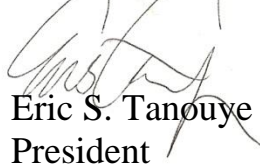
An important way to combat these threats is to have and share the knowledge with growers on how to contain this virus through best



management practices. We ask that you support our industry and agriculture by supporting these efforts for statewide research into pathogens, production and distribution of pathogen-free ornamental ginger plants and outreach to our ornamental producers.

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



EAST OAHU COUNTY FARM BUREAU
910 CALIFORNIA AVE., WAHIAWA, HI 96786

March 28, 2023

Senator Donovan M. Dela Cruz, Chair, and Senator Gilbert S.C. Keith-Agaran, Vice Chair
Senate Committee on Ways and Means
State Capitol, 415 S. Beretania St.
Honolulu, Hawai'i 96813

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee,

The East O'ahu County Farm Bureau, which represents approximately 420 farmers and supporters of agriculture from Waimanalo to Kahuku, **strongly supports HB 306 HD2**, "Relating to Ornamental Ginger," which would provide funding to the University of Hawai'i for research and prevention of the spread of ornamental ginger pathogens.

During the last several years, an emerging disease of red ginger has devastated fields of this valuable ornamental plant in Windward O'ahu. In response, researchers and extension agents at CTAHR performed a statewide survey and causal agent identification study. The study determined that a combination of six viruses, including two viruses never before identified, are the cause of the red ginger decline, with other pathogens and ornamental ginger genetic variation as possible contributing factors. The viruses are found statewide but are most prevalent on O'ahu and Hawai'i Islands. Virus-infected plants cannot be cured, and virus-infected plants are currently the main plants being propagated for more plantings, worsening the problem. Most large-scale operations have virus-infected plants. Ornamental growers elsewhere on O'ahu and on the other Hawaiian islands are concerned that, like many other plant diseases and pests, the new disease will spread to their farms.

To follow up on their initial study, CTAHR researchers have proposed to develop strategies for mitigating the new disease and to collaborate with the Hawai'i Agriculture Research Center to produce virus-free plants so that growers can replant with clean stock. We respectfully request that your committee approve the appropriation proposed by HB 306 HD2, so that Hawai'i's farmers can continue to grow this beautiful tropical flower.

Thank you for the opportunity to testify on this matter of great importance to Hawai'i's ornamental growers.

Sincerely,

Frederick M. Mencher
for Grant Hamachi, President
East O'ahu County Farm Bureau

HB-306-HD-2

Submitted on: 3/28/2023 11:00:32 PM

Testimony for WAM on 3/30/2023 10:05:00 AM

Submitted By	Organization	Testifier Position	Testify
Warren Watanabe	Testifying for Maui County Farm Bureau	Support	Written Testimony Only

Comments:

Maui County Farm Bureau strongly supports HB 306 HD2



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Phone: (808) 848-2074; Fax: (808) 848-1921
e-mail info@hfbf.org; www.hfbf.org

March 30, 2023

HEARING BEFORE THE
SENATE COMMITTEE ON WAYS AND MEANS

TESTIMONY ON HB 306, HD2
RELATING TO ORNAMENTAL GINGER

Conference Room 211 & Videoconference
10:05 AM

Aloha Chair Dela Cruz, Vice-Chair Keith-Agaran, 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 306, HD2, which appropriates funds for statewide research into ornamental ginger pathogens, prevention of the spread of ornamental ginger pathogens, production and distribution of pathogen-free ornamental ginger plants, and outreach to ornamental producers.

Alpinia purpurata, known commonly as ornamental ginger, is a popular plant that is commonly used in tropical landscape designs. Commercial production of ornamental ginger has been on the decline for over a decade on Oahu. Red ginger growers in Windward Oahu have recently experienced a further decline in the growth of their ornamental red ginger plant production due to a variety of unknown viruses and fungi

Producers in the affected areas are excavating their lands as they can no longer economically produce ornamental ginger in these areas. Neighboring farmers and off-island customers are concerned about the spread of pathogens. Reports of crop decline which originally started in the Kahaluu area of Oahu have spread to surrounding areas such as Waihole and Waikane Valley.

In response, researchers and extension agents at CTAHR performed a statewide survey and causal agent identification study. The study determined that a combination of six viruses, including two viruses never before identified, is the cause of the red ginger decline, with other pathogens and ornamental ginger genetic variation as possible contributing factors. The viruses are found statewide but are most prevalent on Oahu and Hawai'i Islands. Virus-infected plants cannot be cured, and virus-infected plants are currently the main plants being propagated for more plantings, worsening the problem. Most large-scale operations have virus-infected plants.

Without more research and prevention protocols through a multi-agency outreach approach, these pathogens could spread further and impact the profitability and long-term sustainability of the local ornamental and landscape production industries.

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

HB-306-HD-2

Submitted on: 3/28/2023 2:34:25 PM

Testimony for WAM on 3/30/2023 10:05:00 AM

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

Comments:

I support HB 306.

Mahalo,

Theresa Thompson

LATE

HB-306-HD-2

Submitted on: 3/29/2023 10:19:21 AM

Testimony for WAM on 3/30/2023 10:05:00 AM

Submitted By	Organization	Testifier Position	Testify
Janet Ashman	Individual	Support	Written Testimony Only

Comments:

Aloha,

Please pass this important measure that will provide necessary research and possible solutions to the very real problems facing red ginger producers in Hawai'i.

Thank you.

LATE

HB-306-HD-2

Submitted on: 3/29/2023 1:19:12 PM

Testimony for WAM on 3/30/2023 10:05:00 AM

Submitted By	Organization	Testifier Position	Testify
Jimmy Gomes	Individual	Support	Written Testimony Only

Comments:

I am in full support of HB 306