

**DAVID Y. IGE**  
Governor

**JOSH GREEN**  
Lt. Governor



**PHYLLIS SHIMABUKURO-GEISER**  
Chairperson, Board of Agriculture

**MORRIS M. ATTA**  
Deputy to the Chairperson

State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

**TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE HOUSE COMMITTEE ON AGRICULTURE**

**FEBRUARY 4, 2022  
10:00 A.M.  
CONFERENCE ROOM 325**

**SENATE BILL NO. 2305  
RELATING TO THE UNIVERSITY OF HAWAII**

Chairperson Hashem and Members of the Committee:

Thank you for the opportunity to testify on House Bill 2305, relating to the University of Hawaii. The bill appropriates funds from the general fund for fiscal year 2023-2024 to be expended by the University of Hawai'i College of Tropical Agriculture and Human Resources for statewide research and prevention of the spread of ornamental ginger pathogens. The Department supports the measure provided it does not impact the priorities of the Executive Supplemental Budget.

Invasive species are a primary threat to Hawai'i's agriculture, environment, and economy. Funding for research on invasive species, such as ornamental ginger pathogens, is critical to ensure that appropriate responses can be developed which mitigate the negative impacts on the State's agriculture, environment, and economy.

Thank you for the opportunity to testify on this measure.



DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

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

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

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 HOUSE COMMITTEE ON AGRICULTURE  
ON  
HOUSE BILL NO. 2305

**February 4, 2022**  
**10:00 a.m.**  
**Room 325 and Videoconference**

RELATING TO THE UNIVERSITY OF HAWAII

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill No. 2305 appropriates an unspecified amount of general funds for FY 23 for the College of Tropical Agriculture and Human Resources to study the diseases affection, the production of red ginger on O'ahu and the neighbor islands, and to develop mitigation strategies for any identified diseases.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
House Committee on Agriculture  
Friday, February 4, 2022 at 10:00 a.m.

By  
Nicholas Comerford, Dean  
College of Tropical Agriculture and Human Resources  
And  
Michael Bruno, PhD  
Provost  
University of Hawai'i at Mānoa

### HB 2305 – RELATING TO THE UNIVERSITY OF HAWAII

Chair Hashem, Vice Chair Perruso, and members of the House Committee on Agriculture:

Thank you for the opportunity to provide testimony in support of HB 2305 which provides funding to study the diseases affecting red 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) scientists have identified the presence of fourteen additional pathogens. The following has been accomplished:

- 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.
- The impact of co-infection by two dominant viruses is being investigated.
- Vectors of the viruses are being investigated. While not definitive, mealybugs 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 potential mitigation strategies. More work is required.
- Outreach efforts with HDOA and industry groups continues. More is required.

Additional funding would promote the better understanding and mitigation of the disease and allow for:

- the development of virus-free plants to distribute to growers via tissue culture, which is a high priority;
- continued experimentation with the virus with respect to mitigation including vectors and major causal agents;
- continued survey of the extent and spread continue to be needed; and,
- continued outreach.

Thank you for the opportunity to submit testimony in support this bill provided that its passage is in addition to and does not replace or adversely impact priorities as indicated in our BOR Approved Budget.



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February 4, 2022

HEARING BEFORE THE  
HOUSE COMMITTEE ON AGRICULTURE

**TESTIMONY ON HB 2305**  
RELATING TO THE UNIVERSITY OF HAWAII

Conference Room 325 & Videoconference  
10:00 AM

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

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

**The Hawaii Farm Bureau supports HB 2305**, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighbor islands.

*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 Hawaii 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-2305**

Submitted on: 2/2/2022 2:31:03 PM

Testimony for AGR on 2/4/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Lance Kobashigawa	Hawaii Farm Bureau Federation	Support	No

Comments:

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

**I support HB 2305**, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighboring islands.

*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, 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 Oahu and Hawaii 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.

Mahalo,





## EAST OAHU COUNTY FARM BUREAU

910 CALIFORNIA AVE., WAHIAWA, HI 96786

February 2, 2022

Representative Mark J. Hashem, Chair  
Representative Amy A. Perruso, Vice Chair  
House Committee on Agriculture  
State Capitol, 415 S. Beretania St.  
Honolulu, Hawai'i 96813

Dear Chair Hashem, Vice Chair Perruso, 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 2305**, "Relating to the University of Hawai'i," which would provide funding for CTAHR 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 for producing virus-free plants so that growers can replant with clean stock. We respectfully request that your committee approve the appropriation proposed by HB 2305, so that CTAHR can help Hawai'i's farmers 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-2305**

Submitted on: 2/3/2022 9:36:06 AM

Testimony for AGR on 2/4/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
John R. Gordines	Hawaii Floriculture & Nursery Ass.	Support	No

Comments:

**Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:**

**I support HB 2305, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighboring islands.**

***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, 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 Oahu and Hawaii 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.**

**Mahalo,**

**Johnny Gordines**

**President- Hawaii Tropical Flowers & Foliage Association**

**HB-2305**

Submitted on: 2/3/2022 9:43:05 AM

Testimony for AGR on 2/4/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Portland Law	Redwater Farm	Support	No

Comments:

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

**I support HB 2305**, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighboring islands.

*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. We almost solely grow red ginger and our entire crop has been affected.

Producers, such as us, 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, 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 Oahu and Hawaii 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.

The UH research team at CTAHR has already been a huge help to us on our farm as we try to maintain our crop and help our plants recover from the effects of the virus. We want to continue working with them to help other farmers maintain their crops or have accessibility to virus free plants to replace lost crop. The research is essential to maintaining not just individual farms and

supporting local growers, but also maintaining an industry here in Hawaii that SO many businesses rely on.

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

Mahalo,

Portland



# HAWAII CROP IMPROVEMENT ASSOCIATION

In Support of HB2305  
Relating to the University of Hawaii

House Committee on Agriculture

Date: Friday, February 4, 2022

Time: 10:00 a.m.

Place: Videoconference

Chair Hashem, Vice Chair Perruso, and members of the committee:

Thank you for allowing the Hawaii Crop Improvement Association the opportunity to provide testimony in **support** of HB2305, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighbor islands.

HCIA supports this measure to protect the declining ornamental red ginger population. Virus-infected plants cannot be cured, yet they are being propagated for more plantings, leading to more virus-infected plants. The pathogen has spread most prevalently on Oahu and Hawaii Island, where neighboring farmers are concerned about further infections. CTAHR's research and prevention efforts can help mitigate the harmful spread of plant viruses that has affected the profitability and long-term sustainability of local growers and farmers.

Mahalo for this opportunity to testify in support of HB2305. If you have any questions, please contact me at your convenience.

Sincerely,

Pono Chong  
Hawaii Crop Improvement Association

*The Hawaii Crop Improvement Association is a Hawaii-based non-profit organization that promotes modern agriculture to help farmers and communities succeed. Through education, collaboration, and advocacy, we work to ensure a safe and sustainable food supply, support responsible farming practices, and build a healthy economy.*

**HB-2305**

Submitted on: 2/2/2022 8:32:41 PM

Testimony for AGR on 2/4/2022 10:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Mark Phillipson	Individual	Support	No

Comments:

Aloha,

These viruses have ruined the red ginger horticulture. Just a few years ago red ginger was readily available for every occasion. Now the flower is hard to find. Please save it and support this bill.

Mahalo

**HB-2305**

Submitted on: 2/2/2022 5:13:49 PM

Testimony for AGR on 2/4/2022 10:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Randy Cabral	Individual	Support	No

Comments:

Strongly support



**HB-2305**

Submitted on: 2/2/2022 3:50:54 PM

Testimony for AGR on 2/4/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Kaelin Sylva	Individual	Support	No

Comments:

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

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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.

Mahalo,

Kaelin Sylva

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

**I support HB 2305**, which appropriates funds to the University of Hawaii for the College of Tropical Agriculture and Human Resources to study diseases affecting the production of ornamental red ginger on Oahu and the neighboring islands.

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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.

Mahalo, Mark L. Soppeland

