Testimony Presented Before the
Senate Committee on Ways and Means
Thursday, February 20, 2020 at 1:00 p.m.
By
Nicholas Comerford
Dean, College of Tropical Agriculture and Human Resources
And
Michael Bruno
Provost
University of Hawai'i at Mānoa

SB 2784 - RELATING TO AGRICULTURE

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

Thank you for the opportunity to testify in <u>support</u> of SB 2784 relating to agriculture and ornamental ginger which appropriates funding to the University of Hawai'i College of Tropical Agriculture and Human Resources (CTAHR) for statewide research and prevention of the spread of ornamental ginger pathogens. CTAHR respectfully provides the following information to substantiate our position.

This bill is one of three (3) addressing biosecurity in the ornamental/landscape industry and is an example of the biosecurity issues facing agriculture in Hawai'i. Ornamental ginger is a valued plant that can be used as a shrub or as a cut flower. CTAHR 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 scientists have identified the presence of fourteen additional pathogens. At this time, it is not known which agent(s) is/are the primary cause of the decline, and which are secondary pathogens infecting a weakened plant.

Research on the disease and survey of its extent continue to be needed. Biosecurity issues like this constantly occur. We never know when they will occur, what will be the scope of the problem, what may be the cause of the problem, and what will be the resulting solution. CTAHR's budget within UHM is not equipped to consistently address such issues. While we have the expertise in both research and extension, the funding is often unavailable.

Thank you for the opportunity to submit testimony in <u>support</u> of SB 2784 provided that its passage does not replace or adversely impact priorities in our BOR Approved Budget.

DAVID Y. IGE Governor

JOSH GREEN Lt. Governor



MORRIS M. ATTA
Deputy to the Chairperson

PHYLLIS SHIMABUKURO-GEISER Chairperson, Board of Agriculture



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 SENATE COMMITTEE ON WAYS AND MEANS

FEBRUARY 20, 2020 1:00 P.M. CONFERENCE ROOM 211

SENATE BILL NO. 2784 RELATING TO AGRICULTURE

Chairperson Dela Cruz and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 2784, relating to agriculture. The bill appropriates funds from the general fund for fiscal year 2020-2021 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 intent of this measure.

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.



 From:
 Alvin Tsuruda

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 7:50:10 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Alvin Tsuruda Owner Waihale Products 41-910 Mahiku Pl Waimanalo, HI 96795 waihale@hawaiiantel.net
 From:
 Alan Gottlieb

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:30:13 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Alan Gottlieb Vice President Ponoholo Ranch PO Box 700489 Kapolei, HI 96709 alan@prloffice.com
 From:
 John Giblin

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 9:00:12 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

John Giblin owner Ohana Farm Orchards 87-2814 Mamalahoa Hwy Captain Cook, HI 96704 jgiblinjr@aol.com **Board of Directors 2018 - 2020**

TESTIMONY FROM THE HAWAII CROP IMPROVEMENT ASSOCIATION

<u>President</u> Joshua Uyehara In Support of SB2784
RELATING TO AGRICULTURE

<u>Vice-President</u> Warren Mayberry Senate Committee on Ways and Means Thursday, 02-20-20 at 1:00PM Senate conference room 211

Secretary Dawn Bicoy Chair Dela Cruz, Vice-Chair Keith-Agaran, and members of the committee:

<u>Treasurer</u> Laurie Yoshida The Hawaii Crop Improvement Association (HCIA) is in support of SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

Directors-at-Large Alan Takemoto Leslie Campaniano Michelle Starke Joshua Uyehara Warren Mayberry

The decline of ornamental ginger on Oahu for the past 10-plus years due to viruses, bacteria or fungi is extremely concerning and detrimental to agriculture in Hawaii. The disease is causing wilting and stunting of the plants. Ginger producers have not only had to excavate their lands but there is concern among neighboring farmers and off-island clientele about the spread of the unknown pathogens.

President Emeritus Alan Takemoto

Research is needed to identify the cause of the disease and to devise strategies to mitigate the potential spread of ornamental ginger pathogens and to ensure the long-term sustainability of local ornamental and landscape production industries.

Please vote in support of SB2784 to fund this important statewide research. Mahalo for your time and consideration.

Respectfully,

Emmanuel Zibakalam

Program Director, 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.



February 20, 2020

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

Testimony in Support of SB 2784, Relating to the University of Hawaii College of Tropical Agriculture and Human Resources (UHCTAHR) (Appropriates funds to UHCTAHR for research and prevention of the spread of ornamental ginger pathogens.)

Thursday, February 20, 2020, 1:00 p.m., in Conference Room 211

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 SB 2784.**

SB 2784. This bill proposes to make an appropriation to the UHCTAHR 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 unidentified bacterial pathogens such as the unknown pathogen causing devastating crop decline in ornamental ginger in windward Oahu, now threaten to invade all of the Hawaiian Islands and wreak further damage.

Senate Committee on Ways and Means February 18, 2020 Page 2

Despite efforts by the UHCTAHR and the Department of Agriculture to address this critical situation, more research and a multi-agency outreach approach is necessary to avoid further damage to the profitability and long-term sustainability of local ornamental flora and landscape production industries.

For the above reasons, LURF $\underline{\mathbf{supports}}$ **SB 2784** and respectfully urges your favorable consideration.

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



910 CALIFORNIA AVE., WAHIAWA, HI 96786

February 18, 2020

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 SB 2784**, "Relating to Agriculture," which would provide funding for CTAHR for research and prevention of the spread of ornamental ginger pathogens.

During the last few years, an emerging disease of red ginger has devastated fields of this valuable ornamental plant in Windward Oʻahu. The disease causes wilting and stunting of the affected plants. Observations by CTAHR extension personnel suggest that the disease is caused by some combination of pathogens, possibly including viruses, bacteria, and/or fungi. CTAHR has used inhouse funds to begin preliminary studies, primarily identifying the viruses present in affected plants, in an effort to determine the cause and prevent the spread of the disease. More funding is needed to extend and complete these studies. In the meantime, ornamental growers elsewhere on Oʻahu and on the other Hawaiian islands are concerned that, like many other plant diseases and pests, the new disease will spread to their farms.

We therefore respectfully request that your committee approve the appropriation proposed by SB 2784. Thank you for the opportunity to testify on this important matter.

Sincerely.

Frederick M. Mencher for Grant Hamachi, President

Frederick M. Mencher

East O'ahu County Farm Bureau



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 20, 2020

HEARING BEFORE THE SENATE COMMITTEE ON WAYS AND MEANS

TESTIMONY ON SB 2784 RELATING TO AGRICULTURE

Room 211 1:00 PM

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, 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 strongly supports SB 2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

Commercial production of ornamental ginger has been on the decline for the past 10 years 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. CTAHR discovered that there are 3 plant viruses affecting ginger production (banana bract mosaic virus (BBrMV), canna yellow mottle virus (CaYMV), and banana streak virus (BSV) and at least one fungal pathogen (*marasmus*) that attributes to crop decline and death. At this time, CTAHR does not know which pathogen is the causal agent of the new and devastating crop decline on ornamental ginger in Windward Oahu.

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 the pathogens (viral, fungal and unidentified bacterial). Reports of crop decline which originally started in the Kahaluu area of Oahu has spread to surrounding areas such as Waihole and Waikane Valley.

Research funding is necessary for growers and researchers to continue their efforts in finding a solution and the cause of the decline in red ornamental ginger. Funding is also needed for a statewide awareness and outreach effort to prevent further spread of the virus problem.

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

<u>SB-2784</u> Submitted on: 2/19/2020 7:53:57 AM

Testimony for WAM on 2/20/2020 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole K Galase	Testifying for Hawaii Cattlemen's Council	Support	No

Comments:

From: Philippe Visintainer
To: WAM Testimony
Subject: I support SB2784

Date: Wednesday, February 19, 2020 9:30:09 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Philippe Visintainer
Member
HCP
7600 Hana Hwy
Haiku, HI 96708
philippe@coconutprotectors.com

 From:
 GLENN TOYAMA

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:50:07 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

GLENN TOYAMA ALL HAWAIIAN FLOWER GARDENS PO Box 5 Mountain View, HI 96771 gtoyama67@gmail.com
 From:
 Stephanie whalen

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 11:50:06 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Stephanie whalen VP KVTHC PO Box 64 Kunia, HI 96759 whaleinn1944@gmail.com
 From:
 Greg Askew

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 12:40:07 PM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Greg Askew Ono Pop's Kauai Ono Pop's Kauai PO Box 435 Kalaheo, HI 96741 GregAskew2@gmail.com
 From:
 James Gomes

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 9:10:05 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

James Gomes Operation Manager Ulupalakua Ranch 8640 Kula Hwy Kula, HI 96790 jag@urmaui.com



<u>SB-2784</u> Submitted on: 2/19/2020 3:59:35 PM

Testimony for WAM on 2/20/2020 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Warren Watanabe	Testifying for Maui County Farm Bureau	Support	No

Comments:

 From:
 Mark Phillipson

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 4:40:05 PM



Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Mark Phillipson Principal Pacific Ag Consultants 2801 Coconut Ave Apt 4E Honolulu, HI 96815 reelrelaxed@gmail.com
 From:
 Luly Unemori

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:00:14 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Luly Unemori 530 Hiilei Pl Wailuku, HI 96793 lunemori@kohakuriver.com
 From:
 John Gordines

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:30:10 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

John Gordines 6721 Kawaihau Rd Kapaa, HI 96746 gordines@kauaiflowers.com
 From:
 Susan Cabral

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:40:09 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Susan Cabral PO Box 337 Volcano, HI 96785 s.kronecabral@gmail.com

<u>SB-2784</u> Submitted on: 2/19/2020 12:01:34 PM

Testimony for WAM on 2/20/2020 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
J Ashman	Individual	Support	No

Comments:

 From:
 Robert Paull

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 7:40:11 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Robert Paull PProfessor/researcher 5393 Poola St Honolulu, HI 96821 robertepaull@gmail.com From: <u>Diane ChChuensanguansat</u>

To: WAM Testimony
Subject: I support SB2784

Date: Wednesday, February 19, 2020 8:40:13 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Diane ChChuensanguansat PO Box 860898 Wahiawa, HI 96786 dina@hawaii.rr.com
 From:
 Megan Kono

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 8:50:09 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Megan Kono 2333 Kapiolani Blvd Apt 3102 Honolulu, HI 96826 megankono808@gmail.com
 From:
 Randy Cabral

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 12:10:06 PM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Randy Cabral PO BOX 337 VOLCANO, HI 96785 kaiwiki.1970@gmail.com
 From:
 Carolynn Lum

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 11:20:07 AM

Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Carolynn Lum 2746 Apapane St Lihue, HI 96766 hawaii96766@yahoo.com
 From:
 Michelle Starke

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 1:30:09 PM



Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

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Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Michelle Starke 91-1010 Waikoihi St Ewa Beach, HI 96706 robert.starke.007@gmail.com
 From:
 Alison Odo

 To:
 WAM Testimony

 Subject:
 I support SB2784

Date: Wednesday, February 19, 2020 5:20:04 PM



Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

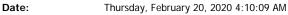
In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

Alison Odo 4272 Huanui St Honolulu, HI 96816 grason1@hawaiiantel.net From: donald sommer
To: WAM Testimony
Subject: I support SB2784





Dear Chairman Dela Cruz,

Aloha Chair Dela Cruz, Vice-Chair Keith-Agara, and members of the committee,

I support SB2784, which makes an appropriation to the University of Hawaii College of Tropical Agriculture and Human Resources for research and prevention of the spread of ornamental ginger pathogens.

In recent years, the production of ornamental red ginger on Oahu has been hit hard by a new disease that causes wilting and stunting of the plants. If the cause of the disease is not identified, the disease will continue to devastate red ginger production on Oahu and may spread to other islands. CTAHR has funded preliminary studies, but more funding is needed to identify the cause of the disease, which may involve viruses, bacteria, and/or fungi, and to devise mitigation strategies.

Thank you for the opportunity to submit testimony.

Mahalo!

Sincerely,

donald sommer 5453 New Grange Garth Columbia, MD 21045 desommer@yahoo.com