SHAN S. TSUTSUI Lt. Governor



SCOTT E. ENRIGHT Chairperson, Board of Agriculture

PHYLLIS SHIMABUKURO-GEISER 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 SCOTT E. ENRIGHT CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEE ON FINANCE

March 1, 2016 1:00 P.M. CONFERENCE ROOM 308

HOUSE BILL NO. 2596 RELATING TO THE MACADAMIA FELTED COCCID

Chairperson Luke and Members of the Committee:

Thank you for the opportunity to testify on House Bill 2596. This bill would appropriate funding for research to develop new methods of preventing and treating macadamia felted coccid infestations. The Hawaii Department of Agriculture is in support of this bill provided that it does not impact the department's executive budget priorities, and would defer to the University of Hawaii College of Tropical Agriculture and Human Resources as to the level of funding that is needed.

The macadamia nut industry is a vital part of the agricultural economy here in Hawaii. With an estimated farm value of over \$35 million, macadamia nuts are one of the top five agricultural commodities for the State of Hawaii.

The macadamia felted coccid can cause severe damage to macadamia nut trees and hurt our macadamia nut industry. It is vital to develop new methods to prevent the spread of this pest and limit the damage that it will have on the macadamia nut industry.

Thank you for the opportunity to testify.





UNIVERSITY OF HAWAI'I SYSTEM

Legislative Testimony

Written Testimony Presented Before The House Committee on Finance Tuesday, March 1, 2016 at 1:00 p.m. By Robert Bley-Vroman, Chancellor And Maria Gallo, Dean And J. Kenneth Grace, Associate Dean College of Tropical Agriculture and Human Resources University of Hawai'i at Mānoa

HB 2596 - RELATING TO THE MACADAMIA FELTED COCCID

Chair Luke, Vice Chair Nishimoto, and members of the House Committee on Finance, thank you for the opportunity to testify in **<u>support</u>** of HB 2596 which appropriates funds to the department of agriculture to collaborate with the University of Hawai'i to research and develop methods for the prevention and treatment of macadamia felted coccid.

Hawai'i is the third largest producer of macadamia nuts in the world, with approximately 15,000 acres harvested on the Island of Hawai'i and a \$38.2 million farm-gate value (NASS 2012). Macadamia felted coccid is a severe pest of macadamia. This scale insect was found in south Kona in February 2005, and is now distributed throughout the Island of Hawai'i. Development of new control methods and appropriate management recommendations are essential for Hawai'i's producers to stop this invasive pest. Horticultural and harvest methods used in Hawai'i and the large size of trees in our well-established orchards contribute to great difficulties in achieving effective control.

In FY 2014, the legislature appropriated funds to initiate collaboration by the Department of Agriculture and CTAHR to address this serious invasive pest problem, augmented by funds committed by industry. With this support, CTAHR has worked in collaboration with the department to research the impact of canopy management, to identify key predators of the coccid and to augment their populations by planting refuge plants in orchards, and to evaluate other new control options.

This is not a simple problem, and a multi-year effort is required. HB 2596 requests appropriation of funds to continue this research effort to the department of agriculture, in order to identify and import effective biological control agents, find ways to further increase the populations of natural enemies of this insect pest, develop better insecticide application technologies, and ultimately develop an effective macadamia felted coccid management plan for Hawai'i macadamia orchards.

The Twenty-Eighth Legislature Regular Session of 2016

HOUSE OF REPRESENTATIVES Rep. Sylvia Luke, Chair Rep. Scott Y. Nishimoto, Vice Chair State Capitol, Conference Room 308 Tuesday, March 1, 2016; 1:00 p.m.

STATEMENT OF THE ILWU LOCAL 142 ON H.B. 2596 RELATING TO MACADAMIA FELTED COCCID

The ILWU Local 142 supports H.B. 2596, which appropriates moneys to the Department of Agriculture to research and develop methods for the prevention and treatment of macadamia felted coccid.

The ILWU represents hundreds of workers in the macadamia nut industry. Our members cultivate macadamia nuts in Pahala and Keaau and work at the factory that processes the macadamia nuts for sale to residents and visitors alike. Macadamia is one of the top five crops grown in Hawaii and offers jobs, supports tourism, and promotes agriculture, which contributes to the diversification of economic activity in Hawaii.

The macadamia felted coccid causes severe damage to macadamia nut trees and, if not controlled, could devastate the industry. The insect was first found in macadamia grown in Hawaii in 2005. Earlier measures to control infestation and its effects seem to be somewhat ineffective. More research is needed.

A bill (H.B. 1931) was passed in 2014 to provide funding for research on the same problem. Apparently, this funding was insufficient and the problem has not been resolved, thus the request in H.B. 2596 for additional funding. The appropriation will represent a sound investment in maintaining the viability of a valuable industry for Hawaii's economy.

The ILWU urges passage of H.B. 2596. Thank you for the opportunity to testify on this important matter.



P.O. Box 253, Kunia, Hawai'i 96759 Phone: (808) 848-2074; Fax: (808) 848-1921 e-mail info@hfbf.org; www.hfbf.org

March 1, 2016

HEARING BEFORE THE HOUSE COMMITTEE ON FINANCE

TESTIMONY ON HB 2596 RELATING TO THE MACADAMIA FELTID COCCID

Room 308 1:00 PM

Aloha Chair Luke, Vice Chair Nishimoto, and Members of the Committee:

I am Randy Cabral, President of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interest of our diverse agricultural community.

HFB strongly supports HB 2596, which appropriates funds to the Hawaii Department of Agriculture to research and develop methods for the prevention and treatment of macadamia felted coccid.

Hawai'i is the 3rd largest producer of macadamia nuts in the world (570 farms, operating on 17,000 acres), after Australia and South Africa. Production in 2013-2014 totaled 41 million pounds; **the net farm value was \$35.7 million**.

The macadamia felted coccid (MFC) threatens the entire macadamia nut industry in Hawaii by causing severe tree dieback and then death. Even mature trees can be killed by this small insect. If not controlled, we believe the MFC will spread and could devastate Hawaii's macadamia nut industry. We have seen what the coffee berry borer has done to the local coffee industry and we know that we can't afford to wait. We need to fund research to find economical solutions to this problem. This bill would supply the needed funding to help develop new ways to prevent and treat MFC infestations.

Hundreds of jobs are tied to macadamia farming in Hawai'i; it is a vital source of employment in Ka'u, which has among the highest unemployment rate in the state. Over 50% of Hawai'i's macadamia tree acres are located in the Ka'u district, the area hardest hit by the MFC. **Please support HB 2596.**

Thank you for the opportunity to comment on this measure.



HCIA 2014 - 2016 Board of Directors

President Kirby Kester

Vice-President Alan Takemoto

Secretary Dawn Bicoy

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Blaise Boyle Adolf Helm Angus Kelly Steve Lupkes Richard McCormack Shay Sunderland Joshua Uyehara Laurie Yoshida

President Emeritus Mark Phillipson

Executive Director Bennette Misalucha

OUR MISSION HCIA 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.

In Strong Support of HB 2596 – HSCR588 Relating to Macadami Nut Felted Cocci

COMMITTEE ON FINANCE Tuesday, 03-1 -16 1:00 PM in House conference room 308

Aloha Chair Luke, Vice Chair Nishimoto and members of the Committee,

My name is Bennette Misalucha, Executive Director of the Hawaii Crop Improvement Association (HCIA). HCIA is a Hawaii-based non-profit organization promoting agricultural bio tech 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 state economy.

HCIA is in strong support of HB 2596.

As an association of farmers, we understand the hardships detrimental pests can cause to both the land and local crops. HCIA supports the intent to protect the macadamia nut industry which produces one of the top five-grossing agricultural commodity in the State.

We support the efforts of the Department of Agriculture (DOA) to collaborate with the University of Hawaii College of Tropical Agriculture and Human Resources (CTAHR) to research and develop methods for the prevention and treatment of macadamia felted coccid. We believe the state should expend the necessary resources toward this end.

We thank you for this time and hope that you will vote in favor of HB2596.

Sincerely, Bennette Misalucha Executive Director, Hawaii Crop Improvement Association

From:	mailinglist@capitol.hawaii.gov
Sent:	Monday, February 29, 2016 2:04 PM
То:	FINTestimony
Cc:	john@olsontrust.com
Subject:	Submitted testimony for HB2596 on Mar 1, 2016 13:00PM

<u>HB2596</u>

Submitted on: 2/29/2016 Testimony for FIN on Mar 1, 2016 13:00PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
John C. Cross	Hawaii Macadamia Nut Association	Support	No

Comments: Dear Chair Luke, I represent over 650 macadamia growers, 18,000 acres of macadamia nuts and an industry that has a farm gate value of some \$50 million dollars. We strongly support HB 2596 regarding additional funding for macadamia felted coccid research and control measures. Additionally the bill provides funding for more macadamia research in other fields that have been forgotten over the years. Please support the industry and pas this bill out of committee. The House Ag committee passed this bill a week or so back with no deletions, insertions or changes. We humbly ask the same of the Finance Committee. Aloha and Mahalo, John C. Cross, HMNA President.

Please note that testimony submitted <u>less than 24 hours prior to the hearing</u>, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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COMMITTEE ON AGRICULTURE March 1, 2016 HB 2596

Aloha Chair Luke, Vice-chair Nishimoto and Committee Members

My name is Randy Mochizuki and I am the Crop Control Superintendant at the Royal Hawaiian Orchard in Pahala, HI. I strongly support this bill to fund a way to protect macadamia nut farmers from a devastating invasive pest.

The coccids were first found in our orchard in 2009 damaging a few trees. It has since spread throughout our 3,300 acres. They have destroyed or damaged a substantial number of trees and continues to do so. I don't believe the Hawaiian macadamia industry has ever seen such a devastating pest.

Due to the size of our trees; oil sprays which can control the pest in orchards with smaller trees, are ineffective because of inadequate coverage. We have experimented with several different sprayers and numerous chemicals. We have even tried aerial insecticide application by helicopter. All have proven inadequate to control the coccids in our orchard.

Other orchards in Kau and along the Hamakua coast are also being damaged by the coccids and have been unable to find effective means of control.

It also has the potential of destroying other macadamia orchards in the state affecting 1,800 acres and a 40 million dollar industry.

Thanks to funding from the State and two macadamia nut companies, some of the research mentioned in this bill has started by the University of Hawaii and the Hawaii DOA. But more funding is required to continue the much needed work.

Please help us by supporting this bill.

Thank you for your consideration of my comments.

From:	mailinglist@capitol.hawaii.gov
Sent:	Monday, February 29, 2016 12:18 AM
То:	FINTestimony
Cc:	ashman.janet@gmail.com
Subject:	Submitted testimony for HB2596 on Mar 1, 2016 13:00PM

<u>HB2596</u>

Submitted on: 2/29/2016 Testimony for FIN on Mar 1, 2016 13:00PM in Conference Room 308

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

Comments: It would be a terrible shame to lose our macadamia nut industry to a pest that could be controlled if we focused our resources upon it.

Please note that testimony submitted <u>less than 24 hours prior to the hearing</u>, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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From:	mailinglist@capitol.hawaii.gov
Sent:	Sunday, February 28, 2016 9:08 AM
То:	FINTestimony
Cc:	amybrinker@mac.com
Subject:	*Submitted testimony for HB2596 on Mar 1, 2016 13:00PM*

<u>HB2596</u>

Submitted on: 2/28/2016 Testimony for FIN on Mar 1, 2016 13:00PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Brinker	Individual	Support	No

Comments:

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Testimony of Royal Hawaiian Orchards In Support of HB2596, Relating to the Macadamia Felted Coccid Bill

2/29/16

To whom it may concern,

I am testifying IN SUPPORT of HB2596, which funds further research into the Macadamia Felted Coccid and also funds an extension agent to specifically research Macadamia.

Research of MFC that was funded to date has seen some success, but is not complete. To see the research completed and an integrated pest management program developed to sustainably control MFC, more funding is required. Since MFC is not native to Hawaii, is thriving in the favorable climate of Hawaii, and is not regulated by specialized predators or parasites, much of the research to date has been focused on understanding the insect lifecycle in Hawaii and what beneficial insects may control the MFC. This information will lead to the development of effective timing and methods for control.

While Macadamia Felted Coccid is the most serious threat to Macadamia in Hawaii, the crop has other underlying issues that also need attention. These include nutritional care for aging orchards, successful replanting, disease resistant variety development, and finding solutions to labor shortages. In order to ensure the success of the industry in the future, these issues will also need to be addressed. An extension agent focused on Macadamia would be a step in the right direction towards improvement and persistence of the industry.

Mahalo,

Bonnie Self Director of Special Projects Royal Hawaiian Orchards, L.P.

March 1, 2016

HEARING BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

TESTIMONY ON HB 2596 Relating to the Macadamia Felted Coccid

ROOM 308

1:00 PM

Dear Chair Luke, Vice Chair Nishimoto, and Members of the Committee,

I strongly support HB 2596, which appropriates funds to the Department of Agriculture to research and develop methods for the prevention and treatment of macadamia felted coccid.

This bill will enable further research benefiting the Macadamia industries battle with the Macadamia Felted Coccid. The Macadamia industry on the Big Island has never seen a pest so virulent and devastating. If a successful pest management strategy isn't devised 18,000 acres of Macadamia orchards are at risk.

HB 507 will help find a solution to a problem that is threatening a \$35,000,000-38,000,000 industry.

Please support HB 2596.

Thank you,



HB 2596, Relating to the macadamia felted coccid:

Chair, Vice Chair, and members of the House Committee on Finance, I thank you for this opportunity to provide my personal testimony in support of HB 2596, Relating to macadamia felted coccid. I strongly support this bill provided that its passage does not replace or adversely impact priorities as indicated in the University's Board of Regents Approved Executive Biennium Budget.

Macadamia felted coccid is the most serious pest of macadamia nuts cultivated in Hawaii. This insect is capable of killing trees, and can have a dramatic impact on yields if left unchecked. While biological control options and insecticide treatments are effective under certain circumstances, there are many situations where the impacts of both are reduced. Research is being conducted to address improvement of biological and chemical control of this pest under all growing conditions; the exact origin (as potential sources of new biological control agents); interactions with macadamia felted coccids with pathogens of macadamia nut trees; and natural resistance to macadamia felted coccid in macadamia varieties are being investigated as well. We have shown significant progress in research during the past year. Further research is required to implement new procedures for macadamia felted coccid, specifically the development of economic injury levels for different varieties, classical biological control, and the effect of tree health on susceptibility to macadamia felted coccid.

My name is Mark G Wright. I am a professor of entomology and an entomology extension specialist at UH Manoa. However, today, I am providing personal testimony. February 29, 2016.