

DAVID Y. IGE
Governor

SHAN S. TSUTSUI
Lt. Governor



State of Hawaii
DEPARTMENT OF AGRICULTURE
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SCOTT E. ENRIGHT
Chairperson, Board of Agriculture

PHYLLIS SHIMABUKURO-GEISER
Deputy to the Chairperson

**TESTIMONY OF SCOTT E. ENRIGHT
CHAIRPERSON, BOARD OF AGRICULTURE**

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

February 18, 2016
9:00 A.M.
CONFERENCE ROOM 312

HOUSE BILL NO. 2596
RELATING TO THE MACADAMIA FELTED COCCID

Chairperson Tsuji 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 is an insipid pest that 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 HAWAII SYSTEM

Legislative Testimony

Written Testimony Presented Before The
House Committee on Agriculture
Thursday, February 18, 2016 at 9:00 a.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 Tsuji, Vice Chair Onishi, and members of the House Committee on Agriculture, thank you for the opportunity to testify in support 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.



February 12, 2016

Representative Clift Tsuji, Chair
Representative Richard H.K. Onishi, Vice Chair
House Committee on Agriculture

Testimony in Support of HB 2596, Relating to Agriculture (Appropriates Funds to the Department of Agriculture (DOA) to Research and Develop Methods for the Prevention and Treatment of Macadamia Felted Coccid).

Thursday, February 18, 2016, 9:00 a.m., in Conference Room 312

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 a utility company. 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 2596**.

HB 2596. This bill proposes to appropriate funds out of the general revenues of the State of Hawaii as may be necessary for fiscal year 2016-2017 for the University of Hawaii's College of Tropical Agriculture and Human Resources (UHCTAHR), to research and develop methods for the prevention and treatment of macadamia felted coccid in cooperation with the DOA; and to hire one UHCTAHR extension agent to work on macadamia nut cultivation, post-harvest handling, and processing concerns, consistent with the Hawaii Macadamia Nut Association research priority goals. The purpose of this measure is to provide funding toward research to develop new methods of preventing and treating macadamia felted coccid infestations.

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 many more harmful pests, such as the macadamia felted coccid, now threaten to invade all of the Hawaiian Islands and wreak further damage,

including damage to Hawaii's macadamia nut crop, which is among the State's top five grossing agricultural commodities.

Despite initial efforts to control the spread of the macadamia felted coccid, infestations have now spread from South Kona to the orchards in the Pahala area on the Big Island, and new methods must be developed to control the incursions. Appropriated funds for research to develop new methods of preventing and treating macadamia felted coccid infestations are immediately necessary to mitigate the threats and impacts of uncontrolled spread and devastation of the State's macadamia nut industry.

For the above reasons, LURF **supports HB 2596** and respectfully urges your favorable consideration.

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



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February 18, 2016

HEARING BEFORE THE
HOUSE COMMITTEE AGRICULTURE

TESTIMONY ON HB 2596
RELATING TO THE MACADAMIA FELTID COCCID

Room 312
8:30 AM

Aloha Chair Tsuji, Vice Chair Onishi, 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.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 17, 2016 8:42 AM
To: AGRtestimony
Cc: john@olsontrust.com
Subject: Submitted testimony for HB2596 on Feb 18, 2016 09:00AM

HB2596

Submitted on: 2/17/2016

Testimony for AGR on Feb 18, 2016 09:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
John C. Cross	Hawaii Macadamia Nut Association	Support	Yes

Comments: Dear Chair and Members of the House Agriculture Committee, my name is John C.Cross and I represent the Hawaii Macadamia Nut Association. I hope to be present and testifying in person tomorrow at your committee hearing. The members and Board of the HMNA strongly support this bill and look forward to its passage out of committee. We need the continued support to fund the research of the Macadamia Felted Coccid pest. Our industry is at risk with this pest. We need both chemical and biological methods to control the spread of the pest. Thank you for your attention. John C. Cross, HMNA President

Please note that testimony submitted less than 24 hours prior to the hearing, 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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Royal Hawaiian Orchards
688 Kinoole St. Suite 121
Hilo, HI 96720 (808) 928-3041

Testimony of Royal Hawaiian Orchards
IN SUPPORT OF HB2596, RELATING TO THE MACADAMIA FELTED COCCID
For the Public Hearing on 2/18/16 at 9:00 AM

Royal Hawaiian Orchards (RHO) is a grower of Macadamia nuts on the Big Island of Hawaii and supports passing of HB2596. RHO manages over 5000 acres of productive macadamia orchards in Keaau and Pahala and is dealing with past damage and current threats from Macadamia Felted Coccid (MFC). The threat to the macadamia orchards in Pahala from MFC is real and potentially devastating. Without the state's support to research MFC, RHO and many other growers may suffer irreparable damages.

Specifically, each of the research points laid out in HB2596 would be helpful in determining the strategy of RHO to counter this pest. We believe that all the research points are valid and important, and we especially find value in points 3-6. For example point number 4 states: "Determining action thresholds for Macadamia Felted Coccid", once thresholds are established, then with confidence we can know that we are treating for the MFC at the most appropriate time to maintain orchard health. Currently we are working with the little data that we and the university have collected and hope to further collect data this year and be able to analyze it to help us make the best decisions. With a well-funded and wide reaching research program, beyond what one company can do in one location, macadamia farmers can have action thresholds that are proven by the University of Hawaii. This point number 4 is only one step of many to get a problem that could be potentially devastating to the Hawaiian macadamia nut industry, under control.

We are grateful to the research that University of Hawaii is currently conducting on MFC and would like to see it expanded and carried further into the future to solve or control this dangerous pest. RHO has, is, and will continue to support research of macadamia felted coccid. Royal Hawaiian orchards supports HB2596 and is grateful that the Hawaii State Legislature is working to take care of its macadamia farmers.

Sincerely,



Eli Isele

Director of Research
Royal Hawaiian Orchards

HB 2596, Relating to the macadamia felted coccid:

Chair, Vice Chair, and members of the House Committee on Agriculture, 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 17, 2016.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 17, 2016 1:35 PM
To: AGRtestimony
Cc: bschoneberg@rhomac.com
Subject: Submitted testimony for HB2596 on Feb 18, 2016 09:00AM

HB2596

Submitted on: 2/17/2016

Testimony for AGR on Feb 18, 2016 09:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Bonnie Self	Individual	Support	No

Comments: This bill is important for several reasons. First of all, though there has been success in the MFC research so far, more is needed. For a successful Integrated Pest Management system to be in place, the life cycle of MFC needs to be fully understood, beneficial insect research needs to continue, and more products need to be researched and approved for treatment. For successful control, products need to be used in rotation and only when necessary. It is also vital that due to the enormity of research and outreach that will be needed that an extension agent that can devote time to other research besides MFC. Thank you.

Please note that testimony submitted less than 24 hours prior to the hearing, 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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The Twenty-Eighth Legislature
Regular Session of 2016

HOUSE OF REPRESENTATIVES
Rep. Clift Tsuji, Chair
Rep. Richard H.K. Onishi, Vice Chair
State Capitol, Conference Room 312
Thursday, February 18, 2016; 9:00 a.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.