# SB 583

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 SENATE COMMITTEES ON AND ENERGY AND ENVIRONMENT AND AGRICULTURE

February 5, 2015 3:15 P.M. CONFERENCE ROOM 225

SENATE BILL NO. 583 RELATING TO AGRICULTURE

Chairpersons Gabbard and Ruderman, and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill 583. This bill appropriates funds to the Department to research and develop methods for the prevention and treatment of macadamia felted coccid. The Department supports this measure provided it does not adversely impact the priorities of the Administration's budget.

The Department would first like to thank the Legislature for its passage of Act 100, Session Laws of Hawaii 2014, that provided funding to the Department to work in conjunction with the University of Hawaii to do research on the prevention and treatment of macadamia felted coccid. The Department is currently working to have that funding released. 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 present testimony.





#### UNIVERSITY OF HAWAI'I SYSTEM

Legislative Testimony

Written Testimony Presented Before the Senate Committee on Energy and the Environment And Senate Committee on Agriculture Thursday, February 5, 2015; 3:15 pm By Robert Bley-Vroman, Chancellor And Maria Gallo, Dean And J. Kenneth Grace, Associate Dean University of Hawai'i at Mānoa

#### SB 583 - RELATING TO AGRICULTURE

Chairs Gabbard and Ruderman, Vice Chairs Green and Riviere, and members of the Senate Committee on Energy and the Environment and Senate Committee on Agriculture, we respectfully submit testimony in <u>support</u> of SB 583, 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.

The College of Tropical Agriculture and Human Resources (CTAHR) and the University of Hawai'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 a severe pest of macadamia, a crop with a \$38.2 million farm value in Hawai'i in 2012. This scale insect was found in south Kona in February 2005, and is now distributed throughout the Island of Hawaii. 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 begun the extensive field sampling required to develop a management decision plan, is testing the impact of canopy management, is developing methods to identify key predators of the coccid and to augment their populations, and is testing new control options.

This is not a simple problem, and a multi-year effort is required. SB 583 requests appropriation of the funds necessary to continue this research effort, to identify and import effective biological control agents, and ultimately develop an effective macadamia felted coccid management plan for Hawai'i macadamia orchards.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | legechair@gmail.com                                    |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 11:40:21 PM                 |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By  | Organization                   | Testifier<br>Position | Present at<br>Hearing |
|---------------|--------------------------------|-----------------------|-----------------------|
| Simon Russell | Hawaii Farmers Union<br>United | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | warrenmcfb@gmail.com                                   |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 6:08:08 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By    | Organization               | Testifier<br>Position | Present at<br>Hearing |
|-----------------|----------------------------|-----------------------|-----------------------|
| Warren Watanabe | Maui County Farm<br>Bureau | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | sustainablesakala@gmail.com                            |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 9:32:19 PM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization                                 | Testifier<br>Position | Present at<br>Hearing |
|--------------|--|-----------------------|-----------------------|
| Steve Sakala | Hawaii Farmers Union<br>United, Kona Chapter | Support               | No                    |

Comments:

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.



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 5, 2015

HEARING BEFORE THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT SENATE COMMITTEE ON AGRICULTURE

> TESTIMONY ON SB 583 RELATING TO AGRICULTURE

> > Room 225 3:15 PM

Aloha Chair Gabbard, Chair Ruderman, Vice Chair Green, Vice Chair Riviere, and Members of the Committees:

I am Christopher Manfredi, President of the Hawaii Farm Bureau Federation (HFB). Organized since 1948, the HFBF is comprised of 1,932 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.

**HFB strongly supports SB 583** which appropriates funds to the Hawaii Department of Agriculture, in cooperation with the University of Hawaii College of Tropical Agriculture and Human Resources, to research and develop methods for the prevention and treatment of macadamia felted coccid.

Hawai'i is the 3<sup>rd</sup> 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 SB 583. Thank you.



February 3, 2015

Senator Mike Gabbard, Chair Senator Josh Green, Vice Chair Senate Committee on Energy and Environment

Senator Russell E. Ruderman, Chair Senator Gil Riviere, Vice Chair Senate Committee on Agriculture

## Support of SB 583 - Appropriates funds to the Department of Agriculture (DOA) to Research and Develop Methods for the Prevention and Treatment of Macadamia Felted Coccid.

#### Thursday, February 5, 2014, at 3:15 p.m., in Conference Room 225

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 SB 583.

**SB 583.** This bill proposes to appropriate out of the general revenues of the State of Hawaii the sum of \$1,000,000 or so much thereof as may be necessary for fiscal year 2015-2016 and the same sum or so much thereof as may be necessary for fiscal year 2016-2017 for the DOA, in cooperation with the University of Hawaii college of tropical agriculture and human resources, to research and develop methods for the prevention and treatment of macadamia felted coccid. The purpose of this measure is to provide funds for 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 as far north as Honokaa on the Big Island, and new methods must be developed to control the incursions. Senate Committee on Energy and Environment Senate Committee on Agriculture February 3, 2015 Page 2

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 <u>supports</u> SB 583 and respectfully urges your favorable consideration.

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

#### Hawaii Macadamia Nut Association P.O. Box 541 Papaikou, Hawaii 96781

Written testimony for Senate Committee on Energy and the Environment

And Senate Committee on Agriculture

HEARING: February 5, 2015, 3:15 P.M.

To: Chairs Senator Gabbad and Ruderman

From: John C. Cross, President, Hawaii Macadamia Nut Association

RE: SB 583, Regarding the Macadamia Felted Coccid.

Dear Chairs Gabbard, Ruderman, Vice Chairs Green and Riviere and Committee Members, My name is John C. Cross I am the current President of the Hawaii Macadamia Nut Association and represent the interests of the Board and membership of the Association. The HMNA represents over 100 grower and processor members. All of the major growers and every processor in the State are active in our organization. Our members cultivate some 18,000 acres of trees in the State and harvest over 50 million pounds of nuts per year. The farm gate value for the crop exceeds \$35 million each year. Our processor members produce over 15 million pounds of Kernal having a wholesale value of over \$135 million. Macadamia kernel is further valued by coating in Chocolates, flavored with salt or unique spices, part of an Energy bar, or made into Oil or Butters. The Hawaiian Macadamia Nut (products) is almost synonymous with Hawaii, Kona Coffee, and Aloha. Visitors to the islands return home with boxes of macadamia nut products and the memories of Hawaii.

Regarding the Macadamia Felted Coccid, we have seen and unfortunately have experienced the especially devastating effects of this pest island wide but especially so in the Ka'u region. This pest is one of most virulent, aggressive, and damaging alien pests I have witnessed in the 20 years since leaving the sugarcane plantations.

THE HMNA STRONGLY SUPPORTS THIS BILL. The support this bill would provide to our industry is critical. We need to give our Department of Agriculture and College of Tropical Agriculture the tools it needs to research this pest and provide methods of control and treatment for infested orchards. There are thousands of jobs at stake Statewide.

There is so much that we do not know about this pest and the research dollars this bill will authorize will be a big boost to finding the weaknesses this pest has, the natural predators that may exist, to find what chemicals or growth regulators may work, what cultural practices we may need to employ to lessen the population, etc. We need research and on the ground effective help as soon as possible.

Thank you for listening to my testimony. I am available to answer questions by phone of e-mail. John@olsontrust.com, 808-987-4229

#### In Support

#### Aloha,

I support SB583, which would provide appropriations for the Hawaii Department of Agriculture and the University of Hawaii - College of Tropical Agriculture and Human Resources for the research of Macadamia Felted Coccid (MFC). In recent years, MFC has become a serious pest of Macadamia on the island of Hawaii and has caused the decline of otherwise healthy, productive trees throughout the Ka'u region. It has since spread up to Hamakua. If left unchecked, this pest could cause the decline of the entire Macadamia industry, which directly and indirectly provides jobs for innumerable Hawaii residents.

The macadamia industry isn't solely comprised of large companies; in reality many of the farms in Hawaii are small growers that depend on their Macadamia harvests and value added products for survival. Treatment options are already scarce to non-existent for large growers. When you consider the resources available to small growers, there are even fewer options. If realistic and economical treatment options aren't discovered, many of the small farmers will be powerless to save their trees and will likely lose their means of income.

Though some MFC research has been initiated, it is still in its nascency and will require many years and a lot of funding to complete. Many growers within the industry have already contributed as much funding as they could afford to initiate the research, but it has not been nearly enough.

I believe that SB583 will provide more of the necessary funding and assistance towards the goal of finding a viable solution to this devastating pest. Without action, the Hawaiian Macadamia industry faces a grim fate. During a time when some of the main issues facing Hawaii are food sustainability and supporting local farmers, it would be contradictory to those goals to essentially let Hawaii's already existing crops fall by the wayside. It is up to you to decide whether ensuring the survival of one of Hawaii's main agricultural industries is a cause worth supporting.

Thank you for the opportunity to submit testimony.

Mahalo, Bonnie Schoneberg Director of Research Royal Hawaiian Orchards, L.P.

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | <u>cjohnson@rhomac.com</u>                           |
| Subject: | Submitted testimony for SB358 on Feb 5, 2015 15:15PM |
| Date:    | Wednesday, February 04, 2015 8:25:08 AM              |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization               | Testifier Position | Present at<br>Hearing |
|--------------|----------------------------|--------------------|-----------------------|
| chris        | Royal Hawaiian<br>Orchards | Comments Only      | No                    |

Comments: The Hawaiian Macadamia industry on the big island has been battling against the soft scale insect Macadamia Felted Coccid (Eriococcus ironsidei ) since 2005. Currently 3300 acres are infested by the insect but there is the potential for it to affect 18,000 acres and a \$35-38 million industry. There are no current agronomically viable options on the table against the Felted Coccid. Research must be carried out to understand it's lifecycle, hormonal signaling (for traps), it's stages of infestation on a tree, any antipathetic symbiosis the insect has with other pathogens, and the effect on plant nutrient uptake/allocation amongst others. It will take the collaboration of government agencies, universities, companies, and individuals to get this problem under control or else there are thousands of jobs at risk.

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.



Hawaii State Senate Energy and Environment Agriculture Weighs and Means

**Regarding SB583** 

February 3, 2015

Greetings.

My name is David Schell and I am the General Manager for the Kea'au operations of Island Princess in Hawaii County. We farm approximately 1000 acres of macadamia and buy in nearly 500,000 pounds of in-shell from other growers around the island every year. Naturally we are very concerned about the on-going impact that Macadamia Felted Coccid is having on the industry and I am writing to encourage you to vote in favor of SB583 when it is presented in your committees.

MFC is an invasive species that was transported from Australia to Hawaii several years ago. At first this scale was considered a nuisance until infestations began to result in total tree mortality – a result, evidently, of the fact that it serves as a vector for naturally occurring funguses which can be lethal if they breech the tree's defenses. The Australians have tools (insecticides for this scale and others) that are not available to Hawaiian macadamia producers and there have not been any natural predators that have been identified to date.

The scale has been spreading gradually through most of the drier parts of the island it is assumed that it will eventually be present throughout the entire county. The damage from lost trees is quickly becoming a substantial economic event for many growers in the Ka'u District and will soon noticeably decrease the available supply of in-shell.

The macadamia industry on the Big Island employs thousands of hard working people and contributes millions of dollars to the state's economy. Keeping the industry healthy and viable is in the interest of every citizen of Hawaii. SB583 provides a reasonable opportunity for the state to aid the industry in combating this insidious pest and protecting the health of the industry before it is too late.

Thank you for your time.

David Schell GM, Island Princess Kea'au Operations Kea'au, Hawaii

> 16-261 Shipman Road, P.O. Box 340, Keaau HI 96749 Phone(808)966-7451 Fax(808)966-8507

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | adam.lottig@gmail.com                                  |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 9:38:20 PM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| adam         | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | begoniabarry@gmail.com                               |
| Subject: | Submitted testimony for SB583 on Feb 5, 2015 15:15PM |
| Date:    | Tuesday, February 03, 2015 9:18:52 PM                |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By  | Organization | Testifier<br>Position | Present at<br>Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Barbara Barry | Individual   | Support               | No                    |

Comments: Yes to this Bill, Mahalo, Ms. Barbara Barry

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.

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | info@courtneybruch.com                               |
| Subject: | Submitted testimony for SB583 on Feb 5, 2015 15:15PM |
| Date:    | Wednesday, February 04, 2015 9:46:14 PM              |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By   | Organization | Testifier<br>Position | Present at<br>Hearing |
|----------------|--------------|-----------------------|-----------------------|
| Courtney Bruch | Individual   | Support               | No                    |

Comments: Thank you for helping to protect macadamia trees!

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | makena42@gmail.com                                     |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 9:59:03 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By    | Organization | Testifier<br>Position | Present at<br>Hearing |
|-----------------|--------------|-----------------------|-----------------------|
| Courtney Turner | Individual   | Support               | No                    |

Comments:

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.

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By    | Organization | Testifier<br>Position | Present at<br>Hearing |
|-----------------|--------------|-----------------------|-----------------------|
| David B. Fisher | Individual   | Support               | No                    |

Comments: This is an important crop for Hawaii for food security and economic reasons. We must be on top of keeping it healthy.

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | <u>ihemphi@live.com</u>                                |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 9:05:32 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Denise Key   | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | teahawaii@gmail.com                                    |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 10:28:40 PM                 |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Eva Lee      | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | mauifaith@gmail.com                                    |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 11:26:29 PM                 |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Faith Ewbank | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | likowallace@ymail.com                                  |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 10:25:46 PM                 |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By   | Organization | Testifier<br>Position | Present at<br>Hearing |
|----------------|--------------|-----------------------|-----------------------|
| Faye L Wallace | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| То:      | ENETestimony   |
| Cc:      | aa44ce7e@opayq.com                                     |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 12:34:32 PM               |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| James Land   | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| То:      | ENETestimony   |
| Cc:      | olindaorganicfarm@hawaiiantel.net                      |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 9:23:07 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Jeff Lind    | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | kpurdyavelino@yahoo.com                              |
| Subject: | Submitted testimony for SB583 on Feb 5, 2015 15:15PM |
| Date:    | Wednesday, February 04, 2015 10:12:34 PM             |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By        | Organization | Testifier<br>Position | Present at<br>Hearing |
|---------------------|--------------|-----------------------|-----------------------|
| Kilia Purdy-Avelino | Individual   | Support               | No                    |

Comments: We own and operate a 1 acre macadamia nut farm on Moloka'i since 1980. Our family strongly supports this bill.

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | caveguy@hawaiiantel.net                                |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 9:17:05 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Lars Lind    | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | mauimartha@hawaiiantel.net                           |
| Subject: | Submitted testimony for SB583 on Feb 5, 2015 15:15PM |
| Date:    | Tuesday, February 03, 2015 9:06:32 PM                |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Martha Lind  | Individual   | Support               | No                    |

Comments: Macadamia nuts are an important Hawaiian crop. Please support this bill that would develop mtheods for the prevention and treatment of macadamia felted coccid.

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | megan.pittsley@gmail.com                               |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 6:10:25 PM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Megan Fox    | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | themomhui@gmail.com                                    |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Tuesday, February 03, 2015 9:54:43 PM                  |

Submitted on: 2/3/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Mercy Ritte  | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | permaculturejourney@gmail.com                          |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 9:08:03 PM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By      | Organization | Testifier<br>Position | Present at<br>Hearing |
|-------------------|--------------|-----------------------|-----------------------|
| Michael Menchetti | Individual   | Support               | No                    |

Comments:

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | pfierrorob@aol.com                                     |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 7:36:00 AM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By     | Organization | Testifier<br>Position | Present at<br>Hearing |
|------------------|--------------|-----------------------|-----------------------|
| Phyllis Robinson | Individual   | Support               | No                    |

Comments:

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.

#### COMMITTEE ON ENERGY AND ENVIRONMENT COMMITTEE ON AGRICULTURE FEB. 3, 2015 SB 583

Aloha Committee Chairpersons and Members of the Committees,

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. 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 1,500 acres and 570 farms and a 35-38 million dollar industry.

Our company's Pahala division has spent well over \$100,000 on this pest since 2009. In 2014, RHO and another Kau company contracted the University of Hawaii to do research on management and control of the felted coccid. That work is ongoing; but much more is need to not only find an immediate control, but long term control measures.

Please help us by supporting this bill.

Thank you for your consideration of my comments.

#### SENATE COMMITTEE ON ENERGY AND EVIRONMENT SENATE COMMITTEE ON AGRICULTURE February 5, 2015 3:15 PM Room 225 Relating to Agriculture SB 583

Aloha Chairpersons Gabbard and Ruderman, Vice Chairs Green and Riviera and Members of the Committee,

I am Randy Cabral and I have been farming in Hawaii for over 40 years. I am the Senior Vice President of Operations for Royal Hawaiian Orchards LP. We farm 6,000 acres of macadamia on Hawai'i Island. Of these, 3,000 are in the District of Ka'u. We employ 250 full time and seasonal workers. **We strongly support this bill**.

I am testifying today to request funding to prevent a dire situation from becoming even worse. Hawai'i is the 3<sup>rd</sup> largest producer of macadamia nuts in the world (570 farms, operating on 17,000 acres), after Australia and South Africa. Production in 2013-2014 crop year totaled 41 million pounds; the net farm value was \$35.7 million.

#### The problem ---the Macadamia Felted Coccid

Already, three of our largest growers, along with many smaller growers, have found a devastating pest, the macadamia felted coccid (MFC) in their orchards. These farms produce over 80% of the state's macadamia kernels.

The strangely named pest is a small Australian insect that covers and feeds on leaves, nuts, branches, and trunks of the macadamia tree. It even thrives in drought conditions, such as those in Ka'u, and can spread easily by wind.

The 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 to other regions on Hawai'i

Island and other islands, and devastate the 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.

#### What do we know and what's been done?

Currently, very little is known about the life cycle or vulnerabilities of the pest. In its native Australia, macadamia nut growers use considerable pesticides to control the MFC, but in Hawaii, because we typically don't use insecticides, we don't have the equipment and resources to apply these types of pesticides to large, mature trees. Some pesticides seem to work but require adequate rainfall or adequate irrigation, neither of which is available.

The MFC has no significant natural predators in Hawaii as compared to Australia.

#### Why fund research to control the pest?

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.

We know there are many other demands for funding and there is a limited budget. Other pests such as the coffee berry borer have gotten more media attention and funding. But we want you to know that without intervention, we have little chance of successfully continuing macadamia farming.

The HDOA and UH CTAHR can help us by studying the MFC and figuring out sustainable and economical solutions. Growers themselves have contributed \$95,000 to UH CTAHR to conduct MFC research, but more funding is needed.

Thank you for allowing me this opportunity to explain our predicament to you. I would be happy to answer any questions you might have. Please contact me if you're interested in seeing in person the devastation this pest has already caused in Ka'u (see photo examples on following pages).

#### MFC Damage in Ka'u Orchard









Tree infested with MFC



MFC on trunk of infested tree



Extensive MFC damage within an orchard block

| From:    | mailinglist@capitol.hawaii.gov                       |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | robyn.c.smith@maine.edu                              |
| Subject: | Submitted testimony for SB583 on Feb 5, 2015 15:15PM |
| Date:    | Wednesday, February 04, 2015 7:51:07 AM              |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By | Organization | Testifier<br>Position | Present at<br>Hearing |
|--------------|--------------|-----------------------|-----------------------|
| robyn smith  | Individual   | Support               | No                    |

Comments: I strongly support this bill. Thanks.

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.

| From:    | mailinglist@capitol.hawaii.gov                         |
|----------|--|
| To:      | ENETestimony   |
| Cc:      | jacinthow001@hawaii.rr.com                             |
| Subject: | *Submitted testimony for SB583 on Feb 5, 2015 15:15PM* |
| Date:    | Wednesday, February 04, 2015 1:01:45 AM                |

Submitted on: 2/4/2015 Testimony for ENE/AGL on Feb 5, 2015 15:15PM in Conference Room 225

| Submitted By     | Organization | Testifier<br>Position | Present at<br>Hearing |
|------------------|--------------|-----------------------|-----------------------|
| William Jacintho | Individual   | Support               | No                    |

Comments:

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.