

**LATE**

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Testimony of Royal Hawaiian Orchards  
IN SUPPORT OF SB2988, RELATING TO THE MACADAMIA FELTED COCCID  
For the Public Hearing on 2/12/16 at 1:20 pm

Royal Hawaiian Orchards (RHO) is a grower of Macadamia nuts on the Big Island of Hawaii and supports passing of SB2988. 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 SB2988 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 SB2988 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

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SB 2988, Relating to the macadamia felted coccid:

Chairs, Vice Chairs, and members of the Senate Committees on Economic Development, Environment, and Technology & Water, Land, and Agriculture, I thank you for this opportunity to provide my personal testimony in support of SB2988, 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 11, 2016.