



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Agriculture and Environment
Senate Committee on Higher Education
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By

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And

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SB 646 – RELATING TO ORNAMENTAL GINGER

Chairs Gabbard and Kim, Vice Chairs Richards and Kidani, and Members of the Senate Committee on Agriculture and Environment and Senate Committee on Higher Education:

Thank you for the opportunity to provide testimony in support of SB 646 which provides funding to continue studying the diseases affecting ornamental ginger on O'ahu and the neighbor islands.

Ornamental ginger is a valued plant that can be used as a shrub or as a cut flower. The College of Tropical Agriculture and Human Resources' 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 (HDOA) experts have established the existence of fourteen additional pathogens.

What has been achieved so far is as follows:

- The islands of O'ahu, Kaua'i, Maui and Hawai'i have been surveyed multiple times in order to document the magnitude and spread of the decline. This has resulted in the discovery of two new viruses never before identified.
- Symptoms have been characterized based on visual identification and genetic sequencing. Symptom categorization has been presented to stakeholders.
- Virus-free plants have been identified and a quarantine facility was built to house them at Komohana Research and Extension Center.
- Virus-free plants were given to Hawai'i Agriculture Research Center, who received a small amount of funding to trial tissue culture experiments.
- The impact of co-infection by two dominant viruses is being investigated.
- Vectors of the viruses are being investigated. While not definitive, mealy bugs and aphids are suspected. More investigation is required.

- It is still unclear which viruses, and how the presence of co-infections can explain the dieback. More investigation is required.
- An Extension publication was produced outlining the current information and the research publication is ready for submission.
- Outreach efforts with HDOA and industry groups continue. More is required.

Additional funding would promote the better understanding and mitigation of the disease and allow for:

- The production of tissue-cultured virus-free ginger plants.
- Mass virus-free tissue culture production.
- With farmer collaborators the development of virus-free stock plant production.
- Development of a research plot to determine how quickly virus-free plants can get infected and the growth yield differences between virus and non-virus plants.
- More laboratory diagnostics would need to occur to support above points.
- Outreach programs would occur on each island when tissue cultured plants are available.
- Continued experimentation with the virus with respect to mitigation including vectors and major causal agents.
- Continued survey of the extent and spread continue to be needed.

Thank you for the opportunity to submit testimony in support of SB 646 provided that its passage does not replace or adversely impact priorities as indicated in our Board of Regents Approved Budget.