

## **UNIVERSITY OF HAWAI'I SYSTEM**

Legislative Testimony

Testimony Presented Before the Senate Committee on Agriculture and Environment Wednesday, January 30, 2019 at 1:15 p.m. By Nicholas Comerford Dean, College of Tropical Agriculture and Human Resources And Michael Bruno Interim Vice Chancellor for Academic Affairs Vice Chancellor for Research University of Hawai'i at Mānoa

SB 375 – RELATING TO AGRICULTURE

Chair Gabbard, Vice Chair Ruderman and members of the Senate Committee on Agriculture and Environment:

Thank you for this opportunity to testify in <u>strong support</u> of SB 375 relating to agriculture. For several years there has been a goal of doubling food production by 2020. However, the approach of how to accomplish this has been poorly defined. Now is a good time to remedy that situation. Hawai'i agriculture is at a crossroads where it is searching for what agriculture will look like into the future, and how this island state, remote from the rest of world, can do a better job of growing its own food. This becomes particularly important when we look at the disasters that befell agriculture in 2018, and the expectation that climate change will continue to disrupt crop production and the import of food.

The approach is not just how to grow more food, but where to grow, what kind of food and in what quantities. The University of Hawai'i at Mānoa, College of Tropical Agriculture and Human Resources (CTAHR) has a working committee asking a similar question as part of its longer-range planning process. We believe that one first starts with supplying a defined population with the proper nutrition. Having determined that, what are the crops (including crops that meet cultural demands) that can be grown, and in what quantities to meet the identified nutrition needs. This is a healthy food approach.

Then one must ask, what are the conditions under which these crops can be best grown, can be consistent with food safety regulations, and be productive in the context of biosecurity issues. For example, what is the role of protected agriculture in doubling food production since the state receives approximately one invasive species per day? Low tunnels, high tunnels, shade houses and greenhouses will play a role. One can envision greenhouse ecosystems with highly trained labor producing at unprecedented levels with low, but highly trained, labor inputs. When crops are grown on the approximately 150,000 acres of quality crop land, we envision a multi-level GIS system that combines soil, water availability, climate parameters, economics, and more, to assist farmers in deciding what crops grow best in that soil, and what will be the best economic return on a cropping system choice given the current market conditions.

CTAHR is ready to collaborate with the Hawai'i Department of Agriculture in the development of such a plan and to add our knowledge of soils and crops where needed.

Thank you for this opportunity to submit testify in strong support of SB 375.