Testimony Presented Before the Senate Committee on Agriculture and Environment Senate Committee on Technology Friday, February 8, 2019 at 1:45 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 1436 - RELATING TO AGRICULTURE

Chairs Gabbard and Keohokalole, Vice Chairs Ruderman and English and members of the Senate Committee on Agriculture and Environment and Committee on Technology.

Thank you for the opportunity to testify on SB 1436 relating to agriculture that requires the Hawai'i Department of Agriculture to conduct a feasibility study on the establishment of ag-tech zones in the city and county of Honolulu and appropriates funds to conduct the feasibility study. The University of Hawai'i at Mānoa, College of Tropical Agriculture and Human Resources (CTAHR) <u>supports</u> the intent of this bill and we respectfully provide the following information to substantiate our position.

CTAHR is in agreement with the legislature that protected agriculture should be a strong future vision for Hawai'i. Some of the benefits of growing food under controlled conditions include the following:

- increased biosecurity and reduced danger from diseases and insects result in a reduced need for pesticides, but understand that it does not remove the need for pesticides;
- reduced use of water;
- increased production per square foot of land as there are examples of vertical farming that produce as much as 400 times more than a square foot of farm land;
- the ability to control the entire agroecosystem;
- the ability to reduce labor, yet increase the skill of those working in these operations with the need for degree programs that plan for this eventuality; and,
- increased ease of meeting both Good Agricultural Practices certification and the U.S. Department of Agriculture Food Safety Modernization Act laws.

However, there are difficulties that will have to be overcome:

- the high cost of land/rent in Hawaii;
- the high cost of energy;
- the necessary capital investment; and,
- knowing the appropriate scale and break-even point to generate a profit.

A feasibility study is the most appropriate approach at this time, particularly due to the challenges mentioned above. CTAHR would be one of those University of Hawai'i units that would possibly be involved in the feasibility study given our expertise in horticulture, entomology and plant pathology; and our recent hires in agricultural economics. CTAHR stands ready to assist where needed.

Thank you for the opportunity to submit testimony.