Written Testimony Presented Before the Senate Committee on Ways and Means Friday, March 28, 2014 at 9:25 am by Maria Gallo, Dean and

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## HB 2180 HD1 – RELATING TO AGRICULTURE

Chair Ige, Vice Chair Kidani, and members of the Senate Committee on Ways and Means, thank you for this opportunity to testify in support of HB 2180 HD1, which would fund a pilot project in the College of Tropical Agriculture and Human Resources, University of Hawai'i at Mānoa, to create new technologies for sustainable agriculture in the State through scientific research and support services.

We 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.

Limiting factors in agriculture in Hawai'i are increasingly high energy costs, waste management needs, water availability and the costs of imported soil amendments. These steadily rising costs are serious threats to the practicality and profitability of farming and ranching in the state, and severe impediments to the goals of food security and sustainability.

HB 2180 HD1 supports research and development of integrated approaches to low-input, sustainable agriculture on a model farm scale in order to extend the results to Hawai'i's farmers and ranchers. A \$1,000,000 appropriation has been suggested as follows. Pilot projects under the umbrella of an integrated agricultural system will include:

- (1) Development of a multi-soil-layer water remediation system for R-3 to R-1 water (\$121,000);
- (2) Solar and biological waste water detoxification, to degrade and detoxify water contaminates such as endocrine disruptors and pharmaceutical wastes that are polluting land and the coastline (\$417,000); and
- (3) Sustainable conversion of agricultural wastes to energy and value added projects. Specifically, construction of a pilot-scale anaerobic biorefinery system to convert organic waste to biogas, and further to refined fuel and co-products such as soil amendments (\$462,000).

The College of Tropical Agriculture and Human Resources experiment station intended as the site for this pilot research and demonstration project, the Waiale'e Experiment Station on the north shore of O'ahu, provides an excellent example of mixed animal/crop, small farm/ranch operations in Hawai'i, and the challenges of input costs, effective waste management and protection of natural resources. Training in the skills needed to address these challenges is an integral part of the pilot project.

This pilot project is intended to provide and extend model technologies for sustainable food and energy production, combined with effective waste remediation and environmental protection in Hawai'i. Thank you for the opportunity to express our support for this effort towards a sustainable Hawai'i represented by HB 2180 HD1.