UNIVERSITY OF HAWAI‘I SYSTEM

TESTIMONY

SB 2749, SB 2750, SB 2751
RELATING TO GENETICALLY MODIFIED ORGANISMS

Testimony Presented Before the
SENATE COMMITTEE ON ENERGY, ENVIRONMENT, AND INTERNATIONAL AFFAIRS
AND
SENATE COMMITTEE ON WATER, LAND AND AGRICULTURE

February 25, 2006

by

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I am pleased to provide input to the decision-making process on Senate Bills 2749, 2750, and 2751, which each propose a ten-year moratorium on testing, propagating, cultivating, raising and growing of genetically modified taro, coffee, and both taro and coffee, respectively.

Since 1901 CTAHR faculty and staff have been working on innovations to help improve taro production for all taro farmers in Hawaii. We have recognized, for example, that a form of taro root rot existed and was affecting the taro industry at the turn of the century. Researchers came up with suggestions for best production practices and shared that information with growers. For years CTAHR faculty have worked on processing options for milling poi and making taro flour. They have shared improved processing techniques to processors along the way. In the last 20 years researchers have also attempted to breed out negative attributes in taro so that farmers get better economic returns. We have worked with farmers to reduce taro snail populations, optimize fertilization regimes and reduce the incidence of taro pocket rot.

We have worked similarly with coffee. There is no doubt that the coffee industry contributes significantly to the economic and cultural vitality of the State. The Hawaii coffee industry originally supported our genetic engineering effort, particularly to control the Kona Coffee Rootknot nematode. Industry support waned in the early 2000’s due to concerns that the high market price and niche value that the Hawaii coffee industry enjoys might be eroded if the coffee plant is genetically modified. Luckily, we have developed a rootstock resistant to the nematode in Kona. However, there are serious threats like the Coffee Berry borer and Coffee Berry disease and Coffee Leaf rust that are common throughout the coffee regions of the world. If these pests were to arrive in Hawaii, the pesticides to control them have not been approved, and furthermore, most Kona growers are not equipped nor experienced with the control measures. A genetically engineered coffee variety might be the only solution for the sustainability of Hawaii’s coffee industry.

Invasive species pose constant challenges to the agriculture industry as well as the environment in Hawaii. The continual inflow of new invasive species is unpredictable and may have far-reaching effects. The current situation with indigenous wili wili (*Erythrina sandwiciensis*) trees being decimated by an invasive gall-wasp species is a good illustration of this. Taro is also prone to effects of invasive species (particularly plant diseases). Currently, the Alomae/Bobone Virus Disease Complex is decimating taro production in Papua New Guinea and the Solomon Islands, and there are no known varieties of taro that are resistant to this virus complex. CTAHR conducts research on such issues when needed, and has contributed significantly to ensuring agricultural development in the State through such actions.

A ten-year moratorium on all aspects of research on genetically modified taro and coffee would mean that if any severe challenge to the production of either crop were to arrive in Hawaii, no work (including laboratory work) could be done to address the issue. It is important to understand that the development of a transgenic variety takes five to seven years, most of which is laboratory and greenhouse work.

We therefore oppose SB2749, SB2750, and SB2951, based on the fact that a moratorium would make taro, including Hawaiian taro, and coffee extremely vulnerable to unpredictable invasions of plant pathogens and other pests by removing the option of utilizing genetic modification to ameliorate the effects of new pests or diseases.

Thank you for the opportunity to testify.