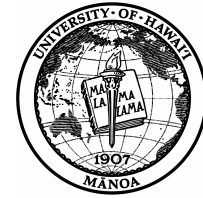


# COOPERATIVE EXTENSION SERVICE

College of Tropical Agriculture and Human Resources  
University of Hawai'i at Mānoa  
United States Department of Agriculture Cooperating



To: Oahu Vegetable and Fruit Growers  
From: Jari S. Sugano & Steve Fukuda, County Extension Agent  
Date: January 30, 2007  
Subject: Oahu County Extension Update IV  
Cc: K. Grace, R. Paull, W. Nishijima, R. Uchida

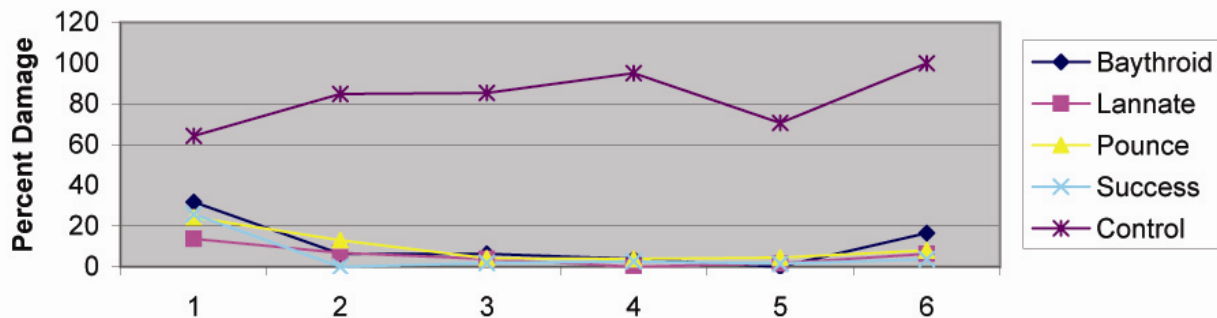
## Highlighted Projects:

### Pickleworm Management Program: Trials completed

Pickleworm is known to damage zucchini, kabocha squash, melons and other cucurbit vegetables. Due to pest resistance concerns and protection of natural beneficial insects, we worked with Dr. Ronald Mau, CTAHR extension specialist, Ed Ishida, Bayer chemical representative, and HDOA entomologist to evaluate an integrated approach for pickleworm control.

The current recommendation for pickleworm control is to examine the crop at flowering and rotate among insecticide classes. Spinosad products like Success and Entrust (organic formulation) was found to be an effective first application product. Synthetic pyrethroid insecticides such as Pounce, Baythroid, Asana, etc are also effective. Occasional use of organophosphate and carbamate insecticides (Lannate, Sevin, etc.) minimizes a resurgence of pests. However, these chemicals should be limited to a single use application in a rotational program to minimize the negative effects on beneficial insects.

### Percent Damage



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### **Hawaiian Super Sweet Corn Variety Trials:**

Hawaii super sweet corn variety trials were conducted throughout Oahu (Waialua, Kahuku and Waimanalo). We are harvesting the final two winter season crops and will have results to share in our next newsletter.



### **Banana Tissue Culture Lab: A Reality**

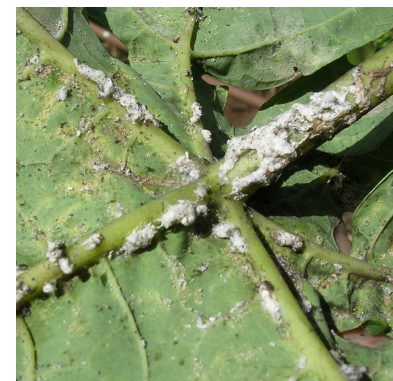
Through USDA CREES grant funds, Dr. Cerruti Hooks, Dr. Eden Perez and Jari Sugano were able to secure funds to establish a tissue culture lab on Oahu. The purpose of the tissue culture facility is to provide growers with clean, disease free planting materials. The long term benefit is the sustainability of Hawaii's banana industry. Planting material developed through this grant will be available to growers shortly.



New banana bunchy top video is available to interested growers. To receive a free copy please call 247-0421 x 107 and leave your contact information.

### **Papaya Mealy bug on Oahu**

The papaya mealy bug was first detected on Maui in 2004. It was detected on Oahu in 2005. In 2006, the population of papaya mealy bug exploded on Oahu and became a major concern.



At the request of the industry, we are working with Hawaii's IR-4 program to screen 2 new crop protection chemicals for papaya mealy bug control: 1) Applaud, 2) Spirotetramat (a new chemical from Bayer). We are evaluating these chemicals against the currently registered products available to growers (Malathion, Provado, etc.).



In addition, we are working with Dr. Mark Wright and the HDOA entomologists to determine the effects of predatory beetles and wasps (*Anagyrus*) on the papaya mealy bug. Releases have been made to infested areas and additional time is needed to produce more beneficial insects.

### **Primus Lab Trains more HDOA Inspectors for Food Safety Audits**

The U.S. Department of Agriculture is encouraging farmers to implement good agricultural practices to improve the quality and safety of produce. Minimizing the risk associated with food-borne pathogens is important in safeguarding our local agricultural industry. In 2006, Primus Lab, a third party auditor conducted an on farm training on a Kahuku food safety certified farm. The training increased the number of trained HDOA inspectors in Hawaii. Growers who pass the food safety audit from Primus Lab are able to enter marketplaces such as Costco, Armstrong Produce, Foodland, Sam's Club, etc.



### **Studying the Interaction of Ants and Aphids**

Ants protect honeydew producing insects such as aphids, scales, mealy bugs, whiteflies from natural predators. These insects pose a problem as they serve as vectors for many plant viruses. We are working with Molokai extension agents, Glenn Taniguchi and Mark Wright at CTAHR PEPS to evaluate the effects of ant bait stations on aphid populations in banana and citrus plantings. The goal of the project is to minimize insecticide applications via ant bait stations and reduce the establishment and spread of the banana bunchy top virus.



### **Re-Vitalizing Oahu's Agricultural Farm Lands**

Limited land and repetitive farming on agricultural lands has resulted in the depletion of nutrients and organic matter in many of Oahu's soils. In other areas, excessive buildup of nutrients can result in micro nutrient deficiencies, unavailability of essential nutrients, and other soil fertility related problems. Through TSTAR grant funds obtained by statewide extension specialist, Dr. Jonathan Deenik, we are collaboratively evaluating the effects of cover crops and manures on re-vitalizing Oahu's farmlands.



### **IR-4 Tour of Oahu Farms**

New pest and diseases enter Hawaii's gateways each year. The goal of the Interregional Research Project (IR-4) program is to provide pest management solutions to growers of fruits, vegetables, specialty, and minor crops. Hawaii's IR-4 program under the direction of Mike Kawate works to obtain new pesticide clearances on many of Hawaii's minor use crops.

In January 2007, the Western Region IR-4 program held its training here on Oahu. Technicians and program leaders from the Western region were able to see first hand the issues facing Oahu growers. Special thanks for Sumida Farms, Dole Farms, Honolulu Poi Company and Kamiya Farms for hosting these important visitors.

### **CTAHR Organic Academy**

Organic farming is a rapidly growing sector of Hawaii's diversified agriculture industry. To meet the local demand for organic produce and minimize invasive pest species, we collaborated with researchers from UH CTAHR, HOFA, and HICOF to conduct an organic academy for commercial growers and master gardeners on organic production and certification. Growers were introduced to organic production practices, learned the differences between organic and conventional practices, gained a better understanding of the benefits of organic production, and learned the process behind organic certification and marketing.

### **Exporting Zuiki: Pest Concerns**

Growers exporting zuiki may be in jeopardy of losing their export market due to an increase in African snails on out going shipments. For information about African snail control, please call your local extension office.

### **Kaneohe Extension Office: New Hours**

Effective February 1, 2007, the Kaneohe Extension office will be open from 10 am to 4 pm on Mondays only. The office will be closed for the rest of the week due to limited staff.