

# SWFREC Update

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 SOUTHWEST FLORIDA RESEARCH  
& EDUCATION CENTER

## Center Director's Corner



The new HLB Lab housed at the SWFREC opened its doors on February 4, and more than 1,000 citrus samples already had been received by lab personnel by mid-March.

The HLB Lab is the state's newest facility dedicated to the Real Time Polymerase Chain Reaction (PCR) molecular diagnosis of Huanlongbing (HLB), commonly known by growers as greening, a bacterial disease transmitted by leafhopper insects. HLB's rapid spread since first being discovered in the Miami area in 2005 threatens numerous citrus groves across south and central Florida. Growers are attempting efforts to control the spread of HLB in groves with the use of insecticides. However, there is no known cure for HLB, and infected trees ultimately will die.

The SWFREC owes much gratitude to growers, elected officials, and industry representatives for their efforts to convince the Florida legislature to appropriate \$250,000 in state funds to establish the HLB Lab in Immokalee. Southwest Florida has quickly become the hotbed area for the disease, as evident by the number of samples from the area that have come into the lab.

Each individual suspect-HLB sample submitted to the lab must be prepared by hand, which constitutes the most time-consuming aspect of the diagnostic process. Once DNA extractions are conducted, samples then are analyzed in the PCR machine at the rate of nearly 90 per machine run.

The HLB Lab currently operates with two fulltime staff members: molecular geneticist Dr. Diana Schultz and lab technician Paul Julian. Additional assistance in preparing samples is offered by other technicians in SWFREC's Plant Pathology department on an as-needed basis. The lab will continue to accept samples at no charge until the state's allocated funding is depleted, at which time additional funding will be sought if the need persists.

For detailed information about how to collect and submit citrus samples, growers should review the HLB Sample Submission Form, which can be found online at <http://swfrec.ifas.ufl.edu/hlb/>. This site also includes detailed sampling and submission procedures.

In the fight against greening, growers have expressed interest in practices being utilized by McKinnon Corporation in a grove that has HLB. SWFREC scientists are working to duplicate this program and determine which component parts or combinations are having the apparent effect of ameliorating symptoms of greening disease. Trials are being conducted by SWFREC citrus horticulturalist Dr. Bob Rouse and entomologist Dr. Phil Stansly in a grove at the center and in commercial groves.

In addition, grower interest in the possible use of trap crops for psyllid management has spurred testing of the effects of orange jasmine on psyllid infestations and parasitization in adjacent citrus trees. SWFREC assistant research professor Dr. Jawwad Qureshi is conducting a trial in which treated and untreated citrus will be used as controls and movement of the greening bacteria will be monitored in a grove at the center.

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## SWFREC Hosts Groups / Tours

The SWFREC played host to three groups of individuals during the last month.

The Collier County Agricultural Tour kicked things off when 200 participants arrived on four buses to hear about citrus, peaches, and plums. Their hour-long visit included a citrus demonstration by SWFREC horticulturalist Dr. Bob Rouse. He presented up-close looks at the various citrus varieties most commonly grown in southwest Florida and talked about the evolution of oranges and grapefruits, growing practices in the area, and other citrus-related issues. Following that demonstration, Dr. Rouse walked the group through plum and peach trees currently growing at the center. He emphasized that varie-



Dr. Bob Rouse talks citrus varieties (above) and growing peaches in southwest Florida (left) with Collier County Ag Tour participants.

ties grown in this area must be of a low-chill type because southwest Florida does not see the cold temperatures that, say, Georgia does. The tour is sponsored by the UF/IFAS Collier County Extension office and included a number of agriculture-related stops.

Current irrigation restrictions and their implications on commercial production were hot topics at a workshop sponsored by UF/IFAS and the Florida Farm Bureau. Among the speakers were citrus physiologist Dr. Bob Ebel, who spoke about the response of citrus and vegetable crops to drought stress, and water resources scientist Dr. Sanjay Shukla, who focused on the future of agricultural impoundments and the reduction of drought impacts. Plant pathologist Dr. Pam Roberts also was on hand to answer grower questions related to drought and commercial production.

The Florida Natural Resources Leadership Institute (FNRLI) staged part of its southwest Florida agricultural tour at the SWFREC. Upwards of twenty-five individuals received a welcome from associate SWFREC center director Dr. John Duncelman, who also provided a brief overview of agriculture in southwest Florida. A panel discussion about farmworker issues concluded the group's visit. The FNRLI fosters education about a variety of land and water resource issues.

## Field Day Spotlights Vegetable Production

Mark your calendars! The UF/IFAS Spring Vegetable Field Day is set for Thursday, May 1, at the SWFREC, 10am-1pm.

In-field and indoor presentations will highlight current research underway, including plant pathology and entomology trials, as well as an update on the C-139 basin water project.

To register, please call the Hendry Co. Extension office at 863-674-4092.

Participants check out vegetable crops at the 2007 field day.



## SWFREC Staff News

- ◆ Barbara Hyman, Citrus Mechanical Harvesting program educational coordinator, created and manned a program exhibit at two events in January: the International Symposium on Application of Precision Agriculture for Fruits and Vegetables in Orlando in January and the Indian River Citrus Seminars in Fort Pierce.
- ◆ Dr. Fritz Roka, agricultural economist, has made presentations to the following groups thus far in 2008: the Chamber of Southwest Florida in Fort Myers, the Collier County Rural Lands Stewardship Review Committee at Ava Maria University, and the Greater Naples Leadership Masters' Class XII in Immokalee. In addition, Dr. Roka served as a bus tour guide during the 2008 Collier County Ag Tour, spoke about the impact of agriculture in Southwest Florida to the Southwest Florida Regional Training Council in Fort Myers, presented information about farmworker issues and the future of agriculture in the state to the Florida Natural Resources Leadership Institute, a group that recently toured Southwest Florida.
- ◆ Dr. Bob Rouse, citrus horticulturalist, spoke to nearly 200 people who participated in the 2008 Collier County Ag Tour in March. He did a demonstration of citrus grown in Southwest Florida, followed by a tour of plum and peach trees on the SWFREC property. In addition, he participated in the South Central Florida Small Farms Conference at the Manatee County Extension office in March to present a talk on research in peaches, nectarines, and plums.
- ◆ Citrus ag assistant Zoe Shobert, plant pathology lab technician Rod Sytsma, entomology senior biological scientist Barry Kostyk, and Dr. Rouse participated in a SAS training course in Gainesville to further their expertise in statistical analysis of research data.
- ◆ Dr. Robert Ebel, citrus physiologist, gave a presentation at a water meeting at the SWFREC in March. His talk focused on the response of citrus and vegetable crops to drought stress. At the same meeting, Dr. Sanjay Shukla, water resources scientist, presented a talk about the future of agricultural impoundments as related to reduced drought impacts.
- ◆ Dr. Shukla, soil scientist Dr. Ed Hanlon, wildlife ecologist Dr. Marty Main, and plant pathologist Dr. Pam Roberts teamed up to present a poster at the Greater Everglades Restoration Coalition meeting on Captiva Island in January.
- ◆ Dr. Hanlon also spoke to a group of participants aboard a water issues cruise along the Caloosahatchee River in February. Among the group was Representative Tim Mahoney. And Dr. Hanlon participated in the Council on Agricultural Science and Technology meeting in Washington, D.C., in March, which included a visit with United States Secretary of Agriculture Edward T. Schafer.
- ◆ Dr. Roberts presented "Management of Whitefly Populations for the Control of Watermelon Vine Decline in Florida" at the 40th Annual Florida Watermelon Association Annual Convention in Orlando in March.
- ◆ Julie Carson, SWFREC media coordinator, received a 2008 University of Florida Superior Accomplishment Award at a ceremony in Gainesville in March. The award in the administrative and professional category also comes with a monetary award of \$200. In addition, Julie wrote a research report article for the March issue of Citrus and Vegetable magazine titled "New Citrus HLB Disease Diagnostic Laboratory Now Up and Running."
- ◆ Dr. Kelly Morgan, soil and water scientist, made a presentation at a Florida Citrus Nutrition Seminar at the SWFREC in March. His talk focused on nitrogen and irrigation scheduling for citrus.
- ◆ Sylvia Meyer, SWFREC secretary and receptionist, participated in UF/IFAS UNIFAS reporting training at the TREC in Homestead in January.



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## Upcoming Events

**April 9:** *Certified Crop Advisors Seminar*. 7:30am-5:30pm, CREC, Lake Alfred (and via videoconference at SWFREC, Immokalee; GCREC, Balm; IRREC, Fort Pierce; and Gainesville). Integrated pest management, 5 CEUs; nutrient management, 5 CEUs. For more information and to register, please go online to [http://www.crec.ifas.ufl.edu/crec\\_websites/cca/](http://www.crec.ifas.ufl.edu/crec_websites/cca/).

**April 22:** *Citrus Mechanical Harvesting Field Day: Emerging Technologies for the 21st Century Citrus Grove*. 7:30am-12pm, SWFREC, Immokalee. Event includes indoor presentations and field site visits. For a copy of the agenda, please go online to [http://citrusmh.ifas.ufl.edu/pdf/events/cmh\\_field\\_day\\_0408.pdf](http://citrusmh.ifas.ufl.edu/pdf/events/cmh_field_day_0408.pdf). To register contact Barbara Hyman at 239-658-3461 or by e-mail at [hymanb@ufl.edu](mailto:hymanb@ufl.edu).

**May 1:** *Spring Vegetable Field Day*. 10am-1pm, SWFREC, Immokalee. Event will include in-field trial demonstrations and indoor presentations. To register, please call the UF/IFAS Hendry County Extension office at 863-674-4092.

**June 7:** *Eighteenth Annual UF/IFAS Farm Safety Day and Tractor Rodeo*. 7:45am-3pm, SWFREC, Immokalee. Event includes educational sessions in the morning and a tractor safety contest in the afternoon. Registration forms will be mailed to companies in late April/early May.

**June 17-19:** *2008 Florida Cattlemen's Association Convention*. Marriott Resort, Marco Island. For more information, go online to <http://www.floridacattlemen.org/>.

**August 20-21:** *2008 Citrus Expo*. Lee Civic Center, Fort Myers. For more information, go online to <http://www.citrusexpo.net/>.

