

SWFREC Update

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 SOUTHWEST FLORIDA RESEARCH
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Gulf Citrus Launches BMP Program

The new best management practices (BMP) program for Gulf citrus growers was officially unveiled on February 1.

The manual, *Best Management Practices for Gulf Citrus*, is the result of nearly two years of work on the part of several organizations, including UF/IFAS, the Gulf Citrus Growers Association, the FDACS Office of Agricultural Water Policy, the SFWMD, the Florida Department of Environmental Protection, USDA-NRCS, Florida Farm Bureau, Florida Citrus Mutual, and the Charlotte Harbor National Estuary Program. The manual was designed for citrus operations in

Charlotte, Collier, Glades, Hendry, and Lee counties and when used by producers will help to protect and improve water quality for southwest Florida. This effort is of special significance for the Caloosahatchee River, which is an important nursery and fishery for many species and is an estuarine system of national significance.

Three SWFREC faculty members were involved in the overall development of the manual: Dr. Kelly Morgan, soil and water scientist; Dr. Bob Rouse, citrus horticulturist; and Dr. Sanjay Shukla, water resources scientist.



Duda Farm Fresh Foods Inc. near LaBelle hosted the BMP celebration, where Florida Department of Agriculture and Consumer Services Commissioner Charles Bronson was among the speakers.

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Center Director's Corner

Cleanup continues of facilities at the SWFREC that were damaged by Hurricane Wilma last November. Structural work and other repairs continues on greenhouses, and the remnants of three out-buildings that were declared a total loss are being removed. Our plan is to install one large building in the place of those three, and we hope to have that project completed by July.

A new water well has been installed to bring irrigation to fields #3 and #4, and field #4 has been planted with tomatoes by the vegetable horticulture program for its controlled-release nitrogen study (see "Spotlight," page 2).

And eight acres of the SWFREC Foundation Grove have been removed so that the area can be prepped for installation of a "model grove" designed to evaluate production and cultural practices with various grove designs. The grove will include two varieties of citrus, Hamlins and Valencia Sweet oranges, on three rootstocks: Swingle citrumelo, Cleopatra mandarin, and Flying Dragon trifoliad. The trees will be planted at three spacings: 10 x 22, 12 x 24, and 8 x 12. Additional information will follow as this project progresses.

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Spotlight On . . . Vegetable Horticulture Program

The SWFREC Vegetable Horticulture Program is part of a statewide effort to improve production efficiency, develop and implement new methodologies, and transfer up-to-date information to vegetable producers and consumers. The program is led by Dr. Kent Cushman, who is assisted by senior biological scientist Karen Armbrester.

One of the major projects underway in this program deals with best management practices (BMPs), specifically the use of fertilizers in vegetable production.

“First, we’re looking at phosphorus fertilization in the C-139 Basin and the effect of reduced phosphorus rates on vegetable yields and quality,” Dr. Cushman explains.

“Vegetable producers are moving into that area because they are being displaced from other areas due to urbanization.

“Second, we’re looking at controlled-release nitrogen products in experiments here at the SWFREC. A trial we began in the fall was flooded and destroyed by Hurricane Wilma. We’re repeating that study this spring, doing the planned spring study, and doing an additional study as well.”



Dr. Kent Cushman and biological scientist Karen Armbrester examine a suction lysimeter in a tomato field planted at the SWFREC.

Vegetable producers located in the C-139

Basin have agreed to participate in the phosphorus project. Crops and rotations are varied. Some are tomatoes only, tomatoes followed by beans, beans followed by beans, and eggplant followed by beans. With the first phase of the study underway, the group hopes to quantify the effect of reduced phosphorus levels by the end of the three-year project.

Another project in progress is the grafting of watermelon plants on resistant rootstocks.

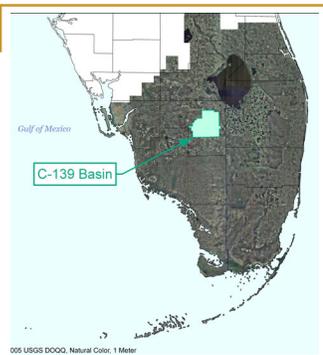
“The interest in this area started as one angle of understanding the nature of vine decline disease, which has become so prevalent in the area,” Dr. Cushman says. “Interest has now grown to explore grafting technology as a methyl bromide alternative. Myself and others throughout the state recently submitted a proposal to the USDA for this project.”

Since joining the faculty at SWFREC in August 2004, Dr. Cushman has spent a great deal of time establishing relationships with growers in southwest Florida and becoming involved with the Southwest Florida Vegetable Advisory Committee.

“Vegetable production in this area is a lot different than in any other place I’ve been,” he says, “so I wanted to learn as much as possible as quickly as possible. You can read a lot or you can go out and see it for yourself. The growers have been a great help.”

Two additional projects have Dr. Cushman working in conjunction with entomologist Dr. Phil Stansly and water resources scientist Dr. Sanjay Shukla, respectively: a Tomato Yellow Leaf Curl study that explores levels of resistance and horticultural characteristics of commercial varieties and a water/nutrient management study that compares three different systems being utilized in quarter-acre blocks.

For more information about the SWFREC Vegetable Horticulture Program, contact Dr. Cushman at 239-658-3400 or via e-mail at kecushman@ifas.ufl.edu.



A project examining phosphorus levels in vegetable production is under way in the C-139 Basin.

SWFREC Hosts Leadership, Ag Groups in March

The Greater Naples Leadership group made the center one of its morning stops on March 8, when fifty-plus participants enjoyed a discussion about agriculture in southwest Florida. SWFREC agricultural economist Dr. Fritz Roka served as a member of the panel, and vegetable horticulturist Dr. Kent Cushman guided the group through an on-bus tour of the SWFREC.

The Collier County Extension Service Ag Tour brought two groups of nearly 120 people each to the center on March 15. Following bus tours of the SWFREC property, participants enjoyed lunch at the center. As buses made their way to a number of agricultural stops across Collier County, four SWFREC faculty members served as on-bus tour guides: Dr. Cushman, Dr. Roka, citrus horticulturist Dr. Bob Rouse, and entomologist Dr. Phil Stansly.



Dr. Fritz Roka answers a question from a Greater Naples Leadership group participant.

SWFREC Staff News

- ◆ Dr. Phil Stansly, entomologist, attended the annual meeting of the Entomological Society of America in December in Fort Lauderdale. He had two posters at the event: “Contribution of Predation and Parasitization to Mortality of Citrus Leafminer *Phyllocnistis citrella* Stainton (Lepidoptera: Gracillariidae) in Florida” and “Incidence of *Diaphorina citri* (Homoptera: Psyllidae) and its Natural Enemies in Puerto Rico.”
- ◆ Several faculty and staff members attended the Indian River Citrus Seminar in January in Fort Pierce, including: Barbara Hyman, education coordinator, promoted the IFAS Citrus Mechanical Harvesting and Abscission Research Group with an exhibit; Dr. Fritz Roka presented “Citrus Acreage, Production Trends, and Production Costs”; Dr. Bob Rouse, citrus horticulturist, presented “Hedging, Topping, and Windbreaks”; and Dr. Stansly presented “Biological Control of Leafminer and Psyllid.”
- ◆ Dr. Kent Cushman, vegetable horticulturist, attended the American Society of Horticultural Science Southern Region Annual Meeting in February in Orlando. He presented a poster, “Grafting of Triploid Watermelon on Squash and Gourd Rootstocks,” and a talk entitled “Okra In-row Spacing Alters Plant Growth and Yield in South Florida.”
- ◆ Assistant scientist of agronomy Dr. Ike Ezenwa gave two presentations at the American Society of Agronomy Southern Branch Annual Meeting in February in Orlando: “Is Creeping Signalgrass an Alternative to Bahiagrass for Cow-Calf Grazing in Florida?” and “Plant Crop Sugarcane Responses to N-rate on Organic-amended Vs. Non-amended Mineral Soils.”
- ◆ Dr. Ed Hanlon was appointed the Soil Science Society of America Executive Committee representative to the S890: North American Proficiency Testing Program Oversight Committee, an international program for the documentation of soil testing laboratories, which he helped to establish in the 1990s.
- ◆ Dr. Pam Roberts, plant pathologist, attended the 92nd Annual National Watermelon Convention of the National Watermelon Association in February in Lake Tahoe, Nevada. She participated on a panel that led a discussion about watermelon vine decline.
- ◆ Soil and water scientist Dr. Kelly Morgan was named faculty representative on the Florida Automated Weather Network management team in January. And he presented a poster titled “Irrigation Scheduling Tool for Citrus Production Using Estimated Daily Reference Evapotranspiration” at the USDA-CSREES National Water Conference in San Antonio, Texas, in February.



Rouse



Hanlon

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Upcoming Events

April 6: *IFAS Citrus Mechanical Harvesting and Abscission Field Day.* 8am-3:30pm, SWFREC, Immokalee. The event will include discussion about the economic and technological aspects of mechanical harvesting, as well as an opportunity to observe two currently viable systems and an abscission demonstration. To register, contact Barbara Hyman at 239-658-3415.

April 12: *Certified Crop Advisors Seminar.* 8am-5pm, SWFREC, Immokalee (and via videoconference at additional locations). Weed control, 3 CEUs; past, present, and future fertilizer supplies, 5 CEUs. For more information, call the SWFREC, 239-658-3400.

April 13: *2006 Forage/Beef Workshop: Weeds and Weed Control in Pastures in SW FL.* 8am-1pm, SWFREC, Immokalee. For more information and to RSVP, call the SWFREC, 239-658-3400.

April 20: *Peach Field Day.* 10am-1pm, SWFREC, Immokalee. Event will focus on varieties, cultural practices, and marketing for peaches in central and south Florida. For more information and to RSVP, call 239-658-3400.

May 23: *Citrus Squeezer Seminar: Topic to be announced.* 10am-1pm, SWFREC, Immokalee. For more information and to RSVP, phone Hendry Co. Coop. Ext. Service, 863-674-4092.

June 3: *Sixteenth Annual UF/IFAS Farm Safety Day and Tractor Rodeo.* 7:45am-3pm, SWFREC, Immokalee. Registration forms will be mailed to companies in late April/early May.

June 20-21: *2006 Florida Cattlemen's Association Convention.* Marriott Resort, Marco Island. For more information, link to the following Web site: www.floridacattlemen.org/fca/. Be sure to stop by the SWFREC booth in the trade show.

