

# SWFREC Update

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 SOUTHWEST FLORIDA RESEARCH  
& EDUCATION CENTER



## Center Director's Corner

We are pleased to announce that a new UF/IFAS budget initiative to promote profitable and sustainable alternative cropping systems will be forwarded through the legislative budget request process. This initiative will provide for improvements and identification of high cash value vegetable and floriculture crops with an emphasis on pest management production and marketing techniques that will enhance IFAS' ability to attract additional funds from statewide groups. In addition, it will promote improved sustainability by preserving and enhancing soil, air, and water resources while producing adequate agronomic and alternative crops. SWFREC items included in this initiative are recurring funds for a new technician position, as well as operating dollars for high-priority projects. We will provide updates on this initiative as it moves through the legislative process.



Special thanks to Ron Hamel, executive vice-president and general manager of the Gulf Citrus Growers Association (GCGA), for his efforts to promote UF/IFAS budget initiatives throughout southwest Florida. The grassroots support of Ron, GCGA grower members, and other industry representatives continues to assist the SWFREC and enable our faculty and staff to improve effectiveness in meeting the needs of our clientele.

Interviews and seminar sessions for candidates for our new citrus physiologist position will be scheduled within the next eight weeks. Schedules will be posted on the Citrus Mechanical Harvesting Web site at <http://citrusmh.ifas.ufl.edu>.

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## Seminars, Trade Show Draw Large Crowd to Expo

The 15th Annual Citrus Expo was a huge success, as more than 1,250 people attended seminars and the trade show.

Seminars, directed by the SWFREC (Dr. Bob Rouse, citrus horticulturalist, serves as Expo program coordinator), focused on how other citrus-producing countries are managing canker and greening diseases. Speakers included industry growers and representatives from Argentina and Brazil.

The Expo is Florida's largest event devoted entirely to citrus.



UF/IFAS exhibits at the Citrus Expo trade show included the SWFREC, FAWN, Citrus Mechanical Harvesting and Abscission, Citrus BMPs, and Citrus Canker and Greening. Left: Barbara Hyman, educational coordinator for the Citrus Mechanical Harvesting program, educates Expo attendees.

## Project Targets Future Wildlife Crossing Plans

A research project just completed in August, which in part was directed by Dr. Marty Main, SWFREC wildlife ecologist, and facilitated by Ginger Allen, SWFREC senior biological scientist, will help to determine potential sites for wildlife crossing structures along several high-traveled roadways in southwest Florida's eastern Collier County near Immokalee.

The study was funded by the National Wildlife Federation, Citygate, and Barron Collier. Cooperating researchers on the project were Dr. Reed Noss and Dr. Daniel Smith with the University of Central Florida in Orlando.

The project's premise: Because roadways are among the largest threats to wildlife, wildlife crossing structures are needed at selected locations along roads to enable wildlife to successfully cross highways and maintain connectivity and gene flow within and among populations.

The purpose of this project was to analyze wildlife movement patterns (particularly large animals, including the Florida panther and black bear) along areas of State Road 29, CR 846, and CR 858. This was accomplished by: 1) monitoring the selected roadways for road-kill; 2) conducting wildlife track monitoring; and 3) setting up remote infrared camera stations at selected sites to monitor large animal crossings on or approaches to highways.

Transects (long, narrow strips of land) were established alongside the selected roadways by clearing them of all vegetation. These areas then were monitored twice weekly between January-August 2006.

"We stopped at the transects to check for animal tracks," explains project field technician David Hammel. "We always flagged a track in the direction the animal was going, so that we could document if the animal had likely just crossed the road or was getting ready to cross the road."

Eight transects were checked for tracks up to three times a week and plowed clean twice weekly. In addition to flagging found tracks, information about each track found was entered onto a log sheet by species, location (using GPS equipment), and direction of travel. Road-kill finds were logged the same way. And photos from the infrared cameras placed at each transect were downloaded on a weekly basis.

Data from the project are still being summarized; however, preliminary results depict more than 70 animal species recorded, including the following that are listed by the state of Florida as threatened: Florida black bear, Florida sandhill crane, and southeastern American kestrel. And the endangered Florida panther also was documented.

"Animals are like people," David says. "They want to travel the path of least resistance, which, unfortunately for them, often happens to be across highways. We hope that when, for instance, the county makes future plans to widen one of these highways, they'll utilize this data to create habitat crossings in appropriate areas."



From top: A deer and a bobcat pass by infrared cameras set up along transects.



Field technician David Hammel explains to Russell Lewis of WGCU-FM radio how to monitor a transect for tracks. Below: a bear track that will be flagged and recorded.



Senior biological scientist Ginger Allen conducts tissue sampling on a road-kill coyote.

## Groups Enjoy Educational Visits to SWFREC

Two groups visited the SWFREC in September to learn about the facility and hear from specific staff members regarding current projects.

A field trip brought twenty-three sixth-grade science students from Oakridge Middle School in Naples to the center for a two-hour visit. Along with five adults and teacher Georgia Stamp, the group heard from the following post-doctoral research associates:

- ◆ Dr. Ronald French, Plant Pathology program, who presented information about various types of fungi and viruses and gave students a close look at Petri dish samples under a microscope.
- ◆ Dr. Jawwad Qureshi, Entomology program, who showed examples of “good” and “bad” bugs, provided information about biological control, and enabled examination of bugs under a microscope.
- ◆ Dr. Fouad Jaber, Water Resources program, who gave an in-field explanation of lysimeters, large tanks that are placed in a field to monitor water intake and usage by plants, thereby determining the actual irrigation needs of plants in the field. He also spoke about growing vegetables on the sandy soils of southwest Florida versus other areas.

A delegation of twenty-four individuals from the Yantai Province in China visited the center to learn about citrus and vegetable production in southwest Florida. The group included agricultural growers and managers, as well as governmental representatives of the agricultural industry in China. The stop was organized by Dr. Daniel Borgia, a faculty member and director of the China Studies Institute at Florida Gulf Coast University, and included the following SWFREC staff members:

- ◆ Associate director Dr. John Dunckelman, who provided an overview of the center and statistics on citrus and vegetable production in southwest Florida.
- ◆ Mark Terrell, a member of the Department of Plant Industry who helps oversee the SWFREC Budwood Foundation grove, who described the state’s citrus budwood program and demonstrated the budding process.
- ◆ Vegetable horticulturalist Dr. Kent Cushman, who gave an in-field overview of vegetable production in southwest Florida, including information about transplant production.



Dr. Kent Cushman discusses vegetable transplant production with the Chinese agricultural delegation.



Petri dishes are passed around to give Oakridge science students up-close looks at bugs and fungi.

## Upcoming Events

**October 9-10:** *Pesticide License Training/Testing.* UF/IFAS Hendry Co. Coop. Extension Service, LaBelle. For more information and to register, phone 863-674-4092.

**October 17:** *Certified Crop Advisor Seminar.* 7:30am-5pm, SWFREC (via videoconference). Soil/water management, 5 CEUs; Crop management, 5 CEUs. For more information and to register, visit <http://www.crec.ifas.ufl.edu/CCA>.

**October 26:** *Citrus Squeezer Seminar: Topic to be announced.* 10am-1pm, SWFREC. For more information and to RSVP, phone Hendry Co. Coop. Extension Service, 863-674-4092.

**December:** *SWFREC Fall Vegetable Field Day.* Date to be announced. Check SWFREC Web site for updates: <http://swfrec.ifas.ufl.edu>.



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## SWFREC Staff News

- ◆ Two SWFREC faculty members received awards at the UF/IFAS Extension 2006 Professional Improvement and Administrative Conference this month in Marco Island:

**Dr. Marty Main**, associate professor of wildlife ecology and conservation, was awarded the Seymour Goldweber Extension Professional and Enhancement Award, which includes a one-time salary supplement of \$1,500 for appointment of term professorship and \$500 for program support.

**Dr. Sanjay Shukla**, assistant professor of water resources, was awarded the Dallas Townsend Extension Professional Enhancement Award, which includes a one-time salary supplement of \$1,500 for appointment of term professorship and \$500 for program support.

- ◆ The following are refereed journal articles published by SWFREC faculty from July-September 2006:

**Dr. Kent Cushman**, vegetable horticulturalist: Cushman, K.E., R.M. Moraes, P.D. Gerard, E. Bedir, B. Silva, and I.A. Khan. 2006. Frequency and timing of leaf removal affect growth and podophyllotoxin content of *Podophyllum peltatum* in full sun. *Planta Medica* 72:824-829.

**Dr. Bob Rouse**, citrus horticulturalist: Kim D. Bowman and Robert E. Rouse. 2006. US-812 Citrus Rootstock. *HortScience* 41:832-836.

**Dr. Sanjay Shukla**: Shukla, S., S. Srivastava. and J. D. Hardin. 2006. Design, construction, and installation of large drainage lysimeters for water quantity and quality studies. *Applied Engineering in Agriculture* 22(4): 529-540.



September 11, 2006, 8:46am:  
SWFREC staff members observe a moment of silence as the flag is lowered to half-mast in honor of those who lost their lives in the terrorist attacks five years ago.