

Established by an act of the Florida Legislature on June 14, 1921, the Everglades Research and Education Center (EREC) in Belle Glade, Florida is an agricultural and environmental research and education unit of the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS).

The Everglades Research and Education Center is distinctive in that it is the only academic agricultural research and extension education facility in the United States located on subtropical organic soils.



'Florida Staysweet,' a 'shrunk-en-2' sweet corn hybrid, noted for its high sugar content and keeping quality, was a three-way hybrid released by faculty member, Emil Wolf, in 1978. This hybrid is responsible for the thriving sweet corn industry in the U.S. and other parts of the world.

Economic Contribution of EREC Research

In October 2001, the Food and Resource Economics Department at UF/IFAS published the results of a study conducted by Edward A. Evans, Max R. Langham and Leo C. Polopolus titled Historic Analysis of the Economic Contribution of the Everglades Research and Education Center (EREC). These are some of its conclusions:

- On average, during the period 1956-1997, a one percent increase in the average amount spent on research of \$1.0 million, caused the net agricultural revenue to increase by \$155,000. That translates into a rate of return or payoff to agricultural research of around 16 percent.
- By its mere presence and the nature of its operations, the EREC generates certain short-term impacts in the local farming community. These were estimated at \$9.7 million and 206 full-time jobs.
- In constant dollars, the research budget increased from \$1.3 million in 1950 to \$2.8 million in 1997, or an annual growth rate of less than two percent.

Look for a feature on The Everglades Soil Testing Lab (ESTL) in the June issue. The ESTL is open daily and tests soils for local area farms. For information contact Joan Lee at 561-993-1569, email: jmlee@ifas.ufl.edu OR Dr. Ron Rice at 561-993-1567, email: rwr@ifas.ufl.edu

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UF/IFAS: Science at work for you



From the Director's Desk:

Dear Community Members and Customers of the Everglades REC,

I am pleased to announce that the Everglades Research and Education Center will be sending out a quarterly newsletter to help keep you all up to date on the activities going on at EREC. We want to include information on current research and extension work being conducted by our faculty and staff, personnel changes, and special events, such as field days, demonstrations, or other activities that we believe would be of interest to you. We are also working with the Palm Beach County Extension Office to include information from EREC in their monthly

newsletters. I hope these efforts will provide you a better picture of the work being done at EREC to support our mission. Our mission is to conduct research and extension programs in southern Florida that will explore and promote profitable and sustainable agricultural systems. The scientists at this Center are from 6 disciplines and investigate agricultural, environmental, and economic issues. We focus on crops important to the Everglades Agricultural Area such as rice, sugarcane, turf-grass, and vegetables. We hope, with this newsletter and our partnership with the county newsletter, to better communicate what program areas are being



emphasized and the successes and challenges of the agricultural and environmental work being conducted here for the benefit of Florida citizens.

Chris Waddill

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Donations enhance Library

- The private collection of Mr. John Lopez Ona was donated to the EREC Library. The majority of the journals and books are related to sugarcane technology.
- Dr. Joseph Schaefer donated his collection of wildlife and ecology books.
- Dr. John Dunkelman, of the Florida Sugar Cane League, donated a collection of sugarcane related journals and books.
- Faculty members recommend, purchase and contribute most of the new book titles.

Most titles in the first two collections have been catalogued, and are included in the University of Florida Online Public Access Catalog, available at: <http://web.uflib.ufl.edu/>

The EREC Library is open to the public 5 days a week, during regular business hours.

Faculty in Focus Dr. Mabry McCray

New to the Everglades Research and Education Center is Dr. James Mabry McCray. Dr. McCray, who prefers "Mabry," will be working on sugarcane nutrition at the Everglades Research and Education Center. He received his



M.S. degree in soil science from the University of Florida, and both his B.S. in agronomy and Ph.D. in soils from the University of Georgia. After completing postdoctoral work with Texas A&M University, Mabry worked for U. S. Sugar for 13 years as a soil scientist in the Research Department. His work at U. S. Sugar included making fertilizer recommendations for sugarcane and citrus,

as well as conducting research with soil amendments, soil test calibrations, expanded use of leaf analysis, and water quality.

Feel free to contact Mabry with questions or ideas regarding research needs at (561)993-1518 or email: jmmccray@ifas.ufl.edu

All programs and related activities sponsored for, or assisted by, the Institute of Food and Agricultural Sciences are open to all persons with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations.



AGRONOMY

Dr. Rob Gilbert, Assistant Professor Current research projects include: 1) Stage III of the CP breeding program, which has a field day in November. 2) Harvest recommendations for CP cultivars, and 3) Sugarcane crop modeling. Dr. Gilbert is editor of the Sugarcane Handbook, an online collection of extension articles on sugarcane breeding, agronomy, insects, diseases, economics and other topics: http://edis.ifas.ufl.edu/ TOPIC_BOOK_Sugarcane_Handbook email: ragilbert@ifas.ufl.edu

Dr. Mabry McCray, Assistant Scientist... see cover .

ENTOMOLOGY

Dr. Ron Cherry, Professor Research interests are insect pests of sugarcane, rice, and turf. Significant recent research findings are as follows: 1) in

general, sugarcane is a stable ecosystem for arthropod predators (i.e. insects, spiders) at ground level in spite of burning and harvesting. 2) weeds in rice fields increase the rice stink bug problem by allowing population build-up of the insects. 3) Two new varieties of St. Augustinegrass resistant to southern chinch bugs were found with Dr. Nagata. email: rhcherry@ifas.ufl.edu

Dr. Gregg Nuessly, Associate Professor Conducts research and extension on strategies for insect control on vegetables and sugarcane. Current short-term project with greenbug aphid biology, host plant resistance and chemical control on seashore Paspalum turf grass. email: gsn@ifas.ufl.edu

FOOD & RESOURCE ECONOMICS

Dr. José Alvarez, Professor

Research and extension activities are conducted under three projects: 1) Farm management /production economic problems on sugarcane and rice; 2) Agrotechnology for crop production and environmental quality protection; 3) Cuban agriculture as it relates to Florida: Challenges and opportunities. Contact him at 561-993-1528 or email at jalv@ifas.ufl.edu

HORTICULTURE

Dr. Russell T. Nagata, Associate Professor Conducts research on genetics and cultivar development of lettuce and turfgrass. Currently working on the genetics of multiple insect resistance in lettuce and development of superior cultivars of turfgrass adapted to Florida that require less inputs to maintain. Co-Director of

Student SOAR, a school-based garden resource to enhance education and understanding of agriculture. email: nagata@ifas.ufl.edu

PLANT PATHOLOGY

Dr. Ken Pernezny, Professor Currently working on diseases of vegetables. Current lab tests have shown that bacterial leaf spot of lettuce is a cool (low 70's for highs) disease. The bacterial spot pathogen of lettuce infects very few other crops, with pepper a notable exception. A new fungicide, Tanos, gave very good control of downy mildew on sandland squash. email: klp@ifas.ufl.edu

Dr. Richard Raid, Professor Current work involves developing management strategies with lettuce and celery growers to control foliar disease problems. Dr. Raid also is very involved promoting school gar-

dens as an educational tool. His SOAR Program (Students Sharing Our Agricultural Roots) now has more than 60 participating schools. Raid has also developed a nationally recognized program utilizing barn owls for sustainable rodent control. email: rnrr@ifas.ufl.edu

SOIL AND WATER SCIENCE

Dr. Samira Daroub, Assistant Professor Current work involves research and extension activities related to Best Management Practices (BMPs) to reduce phosphorus loads in the EAA. Research is conducted on three participating growers' farms in addition to EREC. BMP training workshops will be offered to growers in 2004. Dr. Daroub also offers classes in soil science and soil fertility management in the Ft. Lauderdale REC and

on-line. For further information please contact her at 561-993-1593 or email at sdaroub@ufl.edu

COUNTY EXTENSION OPERATIONS, SOUTH FLORIDA

Dr. Joe Schaefer, Professor and South Florida District Extension Director Seventy-five county extension faculty, dozens of program assistants and even more volunteers are teaching thousands of Floridians from Vero Beach to Key West how to improve their lives by using research-based information. For example, Jack Hebb, multi-county citrus agent, reported that 74% of 1,681 citrus BMP program attendees in 2003 adopted new measures to reduce chemical runoff. Master Gardeners trained and managed by Broward County Agent, Jay Vadaee, helped 33,229 resi-

dents with their gardening, landscaping, plant selection, and insect and disease problems last year. Martha Webster, Nutrition Agent in Palm Beach County, and her program assistants trained 90,141 Palm Beachers in 2003 on nutrition health and wellness and 65% of these reported adopting 2 or more positive nutritional behaviors taught by this program. email: jms@ifas.ufl.edu

UF/IFAS LAKE OKEECHOBEE PROTECTION PROGRAM

Dr. Mitch Flinchum, Professor: and Co-Director, UF/IFAS Lake Okeechobee Program UF/IFAS is actively involved in research/ extension activities in the Lake Okeechobee watershed. Eight projects, focusing on water quality issues, will demonstrate and verify Best Management

Practices (BMPs) for reducing phosphorus in-flow to the lake. These projects are funded with approximately \$5.25 million from the following agencies:

- Florida Dept. of Agriculture and Consumer Services
- Florida Dept. of Environmental Protection
- South Florida Water Management District
- U.S. Department of Agriculture, NRCS
- U.S. Department of Agriculture, CSREES

For additional information on any of the Lake Okeechobee projects you are welcome to contact Mitch Flinchum at 561-993-1523 or email at dmflinchum@ifas.ufl.edu

The Policy Corner

The Farm Security and Rural Investment Act of 2002, also known as the 2002 Farm Bill, which governs Federal farm programs for the next six years, was signed into law on May 13, 2002. The Act has ten titles: Commodity Programs, Conservation, Trade, Nutrition Programs, Credit, Rural Development, Research & Related Matters, Forestry, Energy, and Miscellaneous. It covers 20 commodities under Title 1. Complete information can be found at <http://www.ers.usda.gov/Features/farmbill>

UF/IFAS published a fact sheet containing a summary of the Sugar Program in the current Farm Bill. It can be found under EDIS's Sugar Handbook section: <http://edis.ifas.ufl.edu/SC056>

Staff Notes

Stewart Swanson has joined EREC as the new Research Coordinator. He spent the last 5 years as Director of R & D at Brooks Tropicals, Inc. in Homestead. Before that he was the Commercial Vegetable Crops Extension Agent in Immokalee. For two years Stewart was the agronomist for the island of Bermuda after spending time in the 80's as Technical Director at South Bay Growers, Inc.

Rosie Monroe, formerly with Dr. Lawrence Datnoff in the Plant Pathology Laboratory, and **Gwen Williams**, formerly a technician with Dr. George Snyder will now be assisting Dr. Mabry McCray.

Rani Ramlakhan joins our Everglades Soil Testing Laboratory (ESTL) as a chemist. She formerly worked as a Research Assistant for the Chemistry/Biochemistry Depart-

ment of Florida Atlantic University, where she graduated with both a B.S. and M.S. degree in chemistry. And, new to Dr. Pernezny's Lab: **Nikol Havranek** is a Biological Scientist who came to us from the Univ. of Maryland. She has a strong microbiology background and provides excellent expertise in our research and extension programs. **Jairo Sanchez** is now a Sr. Laboratory Technician in the same lab. He was "stolen" away from Ron Rice's program, so he is not new to the station. He came to us from McDonald College (Faculty of Agriculture) at McGill University in Montreal, Canada. He brings high energy and good general agricultural science knowledge to our center.

Amanda Carroll was hired as a Biological Scientist to assist in Dr. Nagata's research and extension program. She is a graduate of Florida Atlantic University and worked with

Dr. Pernezny's program for over four years as a laboratory technician before moving to Dr. Nagata's program.

Oscar Cruz is our new Maintenance Specialist. He formerly worked for the Shawano Drainage District as a maintenance supervisor and managed the water on around 90,000 acres. In addition to his responsibilities for maintenance he will be supervising the landscape management on the center. Also new to the maintenance staff is **José Ramos** from the Scosta Corporation in Belle Glade.

Margaret Robins works at the front desk, and also has been a valuable library assistant. She has organized a re-labeling system and is coordinating our wonderful library volunteers. Last but not least, the EREC business and administrative offices are pleased to announce that **Migzailie "Chay" Burrus** is now a full time employee and works in both offices.

Publications and Presentations:

- Alvarez, J. "The Current Restructuring of Cuba's Sugar Agroindustry," January 2004. <http://edis.ifas.ufl.edu/FE472> "Policy Prescriptions for the Cuban Agriculture of the Future," at the symposium "Whither Goes Cuba? Prospects for Economic & Social Development," sponsored by the University of Iowa's Center for International Finance and Development and the College of Law, Iowa City, Iowa, February 6-7, 2004.
- Chen, M., R. A. Gilbert, S. H. Daroub, and B. Glaz. Near infrared spectroscopy calibration for P concentration in sugarcane leaves. Soil and Crop Science Society of Florida Proceedings. 62:4-8. 2003.
- Cherry, R. and A. Wilson. Morphology and fertility of wing polymorphic adults of southern chinch bugs (Hemiptera: Lygaeidae). J. of Entomological Science. 38:688-691. 2003.
- Hentz, M. and G. Nuessly. A technique for rearing the sweet corn pest, *Euxesta stigmatias* (Diptera: Otitidae), on a *Helicoverpa* diet. Journal of Entomological Science, vol. 39. 2004.
- Nagata, R. T. and R. Cherry. New source of southern chinch bug (Hemiptera: Lygaeidae) resistance in a diploid selection of St. Augustinegrass. J. of Entomological Science. 38:654-659. 2003.
- Nuessly, G., M. Hentz, B. Scully, and R. Beiriger. Comparison of two IRM stewardship plans for Bt and non-Bt silage corn in central Florida. Presentation at Southeastern Branch Mtg. of Entomological Society of America, Feb 17, 2004.
- Nuessly, G. Picture-winged fly control in sweet corn. Citrus & Vegetable Mag. Nov. 2003.
- Pernezny, K., J. B. Jones and P. D. Roberts. Unusual foliar disease in south Florida cabbage. Citrus & Vegetable Mag. Apr. 2003.
- Rodrigues, F. A., D. J. McNally, L. E. Datnoff, J. B. Jones, C. Labbé, N. Benhamou, J. G. Menzies and R. R. Belanger Silicon enhances the accumulation of diterpenoid phytoalexins in rice: a potential mechanism for blast resistance. Phytopathology. 94(2):177-183. 2004.
- Seebold, K. W., L. E. Datnoff, F. J. Correa-Victoria, T. A. Kucharek and G. H. Snyder. Effects of silicon and fungicides on the control of leaf and neck blast in upland rice. Plant Disease. 88:253-258. 2004.

FACULTY TRANSITIONS

After 15 years of research at the EREC on the epidemiology and control of soilborne diseases on rice, turfgrass and vegetables, Dr. Lawrence E. Datnoff has moved to the Plant Pathology Department on campus.

Dr. Andy Bennett, Assistant Professor, Weed Science, will be leaving the end of March to take a position with USDA-NRCS back in his home state of Oklahoma.