

UF/IFAS
Everglades Research and Education Center
 3200 East Palm Beach Road
 Belle Glade, FL 33430-4702

From the editor:

The News reflects only a small segment of what we do at the EREC. For additional information you are welcome to arrange a visit, or learn more about us on our website.

In addition to this newsletter, we send information and notices about seminars and meetings via email. If you would like to be included on our mailing or email lists, please contact me. If you prefer to reduce your paper intake, you can ask to be removed from this list and I will send you the News as a pdf file. This newsletter may also be found on our website at: <http://erec.ifas.ufl.edu>
 Your comments, questions, and corrections are always welcome.

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The Everglades REC will be closed on September 4th in observance of Labor Day.



The EREC will also be closed the afternoon of October 6 to celebrate Homecoming.

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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.

FRIDAY SEMINAR SERIES

We are pleased to begin this season's Friday Seminar Series on **September 8, at 10:45 a.m.**

Mr. Gene Joyner, Courtesy Extension Agent with the Palm Beach County Extension Office, will discuss "**Hurricane Preparation and Recovery for the Home Landscape.**"

This year we again look forward to an exciting Friday Seminar Series and hope that you will be able to join us. Seminars are free, and the public is welcome to attend.

Mark your calendars:

- September 8, 2006
- October 13, 2006
- November 3, 2006
- December 1, 2006
- January 5, 2007
- February 2, 2007
- March 2, 2007
- April 6, 2007
- May 4, 2007



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UF/IFAS Everglades Research and Education Center



NEWS

Summer 2006
 Volume 3, Issue 2

Inside this issue:

Student interns	2
Ethanol Production & Sugarcane	3
EDIS Publications	4
Faculty accomplishments	6

From the Director's Desk:

We want to express our thanks and appreciation to the entire Palm Beach County legislative delegation for their support of the UF/IFAS budget initiatives this year. Their support of the initiatives helped IFAS in the program areas of agriculture, family and consumer sciences, 4-H, natural resources and Sea Grant. A fifteen million dollar Community Budget Issue Request (CBIR), sponsored by Senator Skip Campbell and other south Florida legislators, and later endorsed as a Legislative Budget Request (LBR) by the board of governors, was approved for IFAS. These funds will be used specifically for repairs of damages from the 2004-2005 hurricanes with 2.4 million dollars of this LBR designated for repairs at the Everglades REC. These funds will also help address some deferred maintenance problems. In a CBIR sponsored by Representative Richard Machek and other south Florida legislators, the sugarcane program at the Everglades and Immokalee RECs received \$300,000 to address critical research challenges facing that industry. Additional research components are being added to the sugarcane breeding and genetics program, along with more research to help improve sugarcane production, with particular emphasis on sugarcane nutrition. Nitrogen recommendations for sandland sugarcane are one of the critical areas to be addressed. Additional projects related to monitoring and control of insects and plant pathogens will be expanded both in burned sugarcane and green cane. A new research component to be added will be a more thorough study and evaluation to document the impact of the wildlife populations that flourish in the EAA.

Finally, we especially would like to extend our thanks and appreciation to Senator Skip Campbell, Representative Joe Negron, Senator Larcenia Bullard, and Representative Richard Machek, for their special efforts this year and dedication and support of agriculture in the EAA.

Chris T. Waddill

Agro-Terrorism
Are you prepared?

Come on out and join the Palm Beach County Sheriff's Office Agricultural Crimes Unit as they present a program on Agro-Terrorism and Crime Prevention for Farms and Ag Businesses. A complementary Barbeque luncheon will be provided following the program.

When: Thursday September 21, 2006 (0800-0830 registration coffee and pastries, 0830-1145 program, 1145 barbeque luncheon)

Where: The University of Florida Everglades Research and Education Center Conference Center, 3200 East Canal St South Belle Glade (the experiment station on CR 880)

Who: Sheriff Ric Bradshaw, the Agricultural Crimes Unit, Terrorism experts and other guest speakers

RSVP Agunit@pbso.org
 or 561-996-1680

For additional information contact the Agricultural Crimes Unit at 561-996-1680

agunit@pbso.org



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.

Summer Interns 2006



EREC Summer Intern Program

Four local schools were invited to participate in the Everglades Research and Education Center summer internship program during 2006. This summer internship program provides students with an opportunity to work in agricultural, biological, and environmental sciences. Students pursuing higher education benefit both from exposure to advanced sciences in a research setting and working side by side with university professors and graduate students. In the past, several interns have returned to EREC for more permanent employment.

Student interns Left to Right:

Jeffrey Dent worked in the Soil and Water Department for Dr. Tim Lang. Jeffrey assisted taking water samples, and also helped with facility maintenance and cleanup. He also worked with the Plant Breeding Department, harvesting corn, and caring for the grass plots.

Keisha Hodges worked with Dr. Gregg Nuessly in the Entomology Department. She worked on our silage corn IPM experiment from mid July through mid August. Keisha counted corn plants and ears, and evaluated them for insect damage. She also ground and weighed corn samples from the trial. One of her other tasks was to sort suction trap samples for aphids and psyllids.

Trybius (Ty) Davis worked in the Plant Breeding Department for Dr. Scully. Ty watered, harvested and shelled corn. He also watered and clipped grass plots. In addition to basic horticultural tasks, Ty assisted with cleanup and did some painting.

Jeremy Brown worked in Dr. Rob Gilbert's lab this summer assisting in sugarcane agronomy projects. Jeremy spent quite a bit of time in the field performing stalk counts to help determine sugarcane yields. Jeremy also mowed around the field plots.

Schaquasha Upshur has been performing laboratory duties related to soil and plant nutrient analysis, for Dr. Alan Wright. She measured soil and plant tissue phosphorus concentrations for lettuce and celery experiments and also helped out with clerical tasks.

Travis Spencer did a good job for Dr. Mabry McCray this year. His work included grinding leaf samples, weighing leaf samples for analysis, assisting with washing glassware and other lab preparation, and collecting sugarcane leaf samples in the field.

Shirley Holly was an intern for Dr. Elise Pearlstine, she worked both in the office and in the field. She assisted on bird surveys of nesting birds in agricultural fields and in the Stormwater Treatment Areas. She also was a valuable resource in managing databases and in organizing and working with digital photographs of wildlife in the EAA.

The Policy Corner

By José Alvarez

Economic studies analyzing the impacts of free trade agreements on the U.S. sugar industry continue to appear. A recent one is titled "The Impact of Central America Free Trade Area (CAFTA) on the United States Sugar Market," by P. Lynn Kennedy and Hassan Marzoughi, Department of Agricultural Economics and Agribusiness at Louisiana State University.

It uses the U.S. sugar demand elasticity and the amount of increase in the U.S. sugar import quota under CAFTA to estimate the magnitude of the impact. The main result is a decrease of 1.7 cents per pound in the domestic price of sugar, or approximately 8.6%. Although it is a small amount, this decrease could result in the incursion of significant U.S. government expenditures given the current structure of the U.S. non-recourse loan program.

Copies of the paper can be requested from the LSU agricultural economics department at hmarzo2@lsu.edu

FACULTY PUBLICATIONS - 2006

Working for the Farmers and the Environment in the Everglades Agricultural Area

Alvarez, J. (2006). Capitalism, god, and a good cigar: Cuba enters the twenty-first century by Lidia Chávez (ed). The Latin Americanist, 49(2: 253) from <http://www.cas.ucf.edu/politicalscience/secolas/TLA/issues/spring2006>

Cai, Y., Feng, M., Schrlau, J. E., **Snyder, G. H., Chen, M.,** & Cisar, J. L., et al. (2006). Response to comment on arsenic transport and transformation associated with MSMA application on a golf course green. Journal of Agricultural and Food Chemistry, 54(6), 2438-2440.

Chen, M., Daroub, S. H., Lang, T. A., & Diaz, O. A. (2006). Specific conductance and ionic characteristics of farm canals in the Everglades Agricultural Area. Journal of Environmental Quality, 35(1), 141-150.

Cherry, R. (2006). Abundance and seasonal activity of arthropod predators in St. Augustinegrass lawns in Florida. Journal of Entomological Science, 41(2), 165-169.

Daroub, S. H., Lang, T. A., Diaz, O. A., & Chen, M. (2006). Implementation and verification of BMPs for reducing P loading from the Everglades Agricultural Area. 2006 annual report

Diaz, O. A., Daroub, S.H., Stuck, J.D., Clark, M.W., **Lang, T. A.,** & Reddy, K. R. (2006). Sediment inventory and phosphorus fractions for water conservation area canals in the everglades. Soil Science Society of America Journal, 70(3), 863-871.

Edme, S. J., **Gilbert, R. A.,** Comstock, J. C., Glaz, B., Tai, P. Y. P., & Miller, J. D., et al. (2006). Registration of 'CP 98-1029' sugarcane. Crop Science, 46(4), 1821-1822.

Gilbert, R. A., Shine, J. M., Miller, J. D., **Rice, R. W., & Rainbolt, C. R.** (2006). The effect of genotype, environment and time of harvest on sugarcane yields in Florida, USA. Field Crops Research, 95(2-3), 156-170.

Glaz, B., & **Gilbert, R. A.** (2006). Sugarcane response to water table, periodic flood, and foliar nitrogen on organic soil. Agronomy Journal, 98(3), 616-621.

Hagelbert, G. B., & **Alvarez, J.** (2006). Historical overview of cuba's costs of sugar production: Implications for the future. , FE626from <http://edis.ifas.ufl.edu/FE626>

POSTERS - 2006

USDA-CSREES National Water Quality Conference. February 6-9, 2006. San Antonio, TX. "Wetland Enhancement Decision-Making Tools..." by **D.M. Flinchum**

Loxahatchee River Watershed Science Symposium, April 2006, Jupiter, FL. "Citizen Participation Opportunities in Everglades Restoration Efforts," by **A.R. Dodd, M.A. Brennan, G.D. Israel, and F.J. Mazzotti**

Greater Everglades Ecosystem Restoration Conference, May 2006, Lake Buena Vista, FL. "Exploring Citizen Participation Opportunities In Everglades Restoration Efforts," by **A.R. Dodd, M.A. Brennan, G.D. Israel, and F.J. Mazzotti**

Greater Everglades Ecosystem Restoration (GEER) conference, June 5-9, Orlando, FL. "Enhancing BMP performance in the EAA," by **T. Lang, O. Diaz, M. Chen and S. Daroub**

Proc. Caribbean Food Crop Soc., June 11, 2006, San Juan, Puerto Rico "Evaluation of fungicides for control of rust and powdery mildew on snap beans in Florida," by **R.N. Raid, R.T. Nagata, and K. Pernezny**

Proc. Caribbean Food Crop Soc., June 11, 2006, San Juan, Puerto Rico. "Influence of the strobilurin fungicides on foliar diseases and yield of sweet corn in Florida," by **R.N. Raid**

18th World Congress of Soil Science- Frontiers of Soil Science: Technology and the Information Age, Philadelphia, PA, July 9-15, 2006. "Ten Years of Phosphorus Best Management Practices in the Everglades Agricultural Area," by **S. Daroub, T. Lang, O. Diaz, and M. Chen**

18th World Congress of Soil Science- Frontiers of Soil Science: Technology and the Information Age, Philadelphia, PA, July 9-15, 2006. "Impact of land use in an organic soil of the Everglades Agricultural Area," by **M. Chen, S.H. Daroub, J.L. Pantoja, O.A. Diaz, T.A. Lang, and V. Nadal**

Kabengi, N. J., Daroub, S. H., & Rhue, R. D. (2006). Energetics of arsenate sorption on amorphous aluminum hydroxides studied using flow adsorption calorimetry. Journal of Colloid and Interface Science, 297(1), 86-94.

Kabengi, N. J., Rhue, R. D., & Daroub, S. H. (2006). Using flow calorimetry to determine the molar heats of cation and anion exchange and the point of zero net charge on amorphous aluminum hydroxides. Soil Science, 171(1), 13-20.

Luo, Y. G., Muchovej, R. M., Hanlon, E. A., & Gallaher, R. N. (2006). Response of lima bean to inorganic nitrogen and broiler manure sources and rates. Communications in Soil Science and Plant Analysis, 37(3-4), 587-603.

Nagoshi, R. N., Meagher, R. L., Adamczyk, J. J., Braman, S. K., Brandenburg, R. L., & **Nuessly, G.** (2006). New restriction fragment length polymorphisms in the cytochrome oxidase I gene facilitate host strain identification of fall armyworm (Lepidoptera : Noctuidae) populations in the southeastern united states. Journal of Economic Entomology, 99(3), 671-677.

Nagoshi, R. N., Meagher, R. L., **Nuessly, G.,** & Hall, D. G. (2006). Effects of fall armyworm (Lepidoptera : Noctuidae) interstrain mating in wild populations. Environmental Entomology, 35(2), 561-568.

Pearlstine, E. V., Mazzotti, F. J., & Kelly, M. H. (2006). Relative distribution and abundance of wintering raptors in agricultural and wetland landscapes of south Florida. Journal of Raptor Research, 40(1), 81-85.

Robinson, P. E., Jones, J. B., & **Pernezny, K.** (2006). Bacterial leaf spot of lettuce: Relationship of temperature to infection and potential host range of xanthomonas campestris pv. vitians. Plant Disease, 90(4), 465-470.

Townsend, S., **Pearlstine, E. V.,** Mazzotti, F. J., & Deren, C. M. (2006). Wading birds, shorebirds, and waterfowl in rice fields within the Everglades Agricultural Area, USA. Florida Field Naturalist, 34(1), 9-20.

Florida Entomological Society Annual Meeting. July 23-26, 2006, Jupiter Beach, FL. "Effects of Cane Trash on Lesser Cornstalk Borer, *Elasmopalpus lignosellus*, (Lepidoptera: Pyralidae) in Sugarcane," by **H.S. Sandhu and G.S. Nuessly.**

American Society for Horticultural Science, July 28-30, 2006, New Orleans, LA. "Evaluation and Selection of Squash Types and Cultivars for Production of Edible Squash Blossoms," by **D. Parmenter, R. Nagata, Kent Cushman**

American Society for Horticultural Science, July 28-30, 2006, New Orleans, LA. "How Small Growers Can Help Vegetable Crops Survive Hurricanes: Tips We Didn't Want to Learn," by **D. Parmenter**

American Society for Horticultural Science, July 28-30, 2006, New Orleans, LA. "Impact of Hurricanes on Vegetable Crops in South Florida," by **D. Parmenter** and Kent Cushman

[Combined] American Phytopathological Society and Canadian Pathological Society Annual Meetings, July 29 to August 2, Quebec City, Canada. "Etiology of pepper anthracnose in Florida," **Harp, T., Pernezny, K., Miller, S.A., Ivey, M., and Datnoff, L.E.**

[Combined] American Phytopathological Society and Canadian Pathological Society Annual Meetings, July 29 to August 2, Quebec City, Canada. "Evaluation of assorted foliar fungicides for control of downy mildew of Chinese broccoli," by **R.N. Raid**

Proc. Int. Conf. on Agric, Environ. and Sustainability, August 8, 2006, Sacramento, CA. "Barn owls as a means of sustainable rodent control," by **R.N. Raid and J.M.Martin**

PRESENTATIONS / ABSTRACTS - 2006

ENVIRONMENT / EAA / LAKE OKEECHOBEE

Florida Natural Resources Leadership Institute. January 20, 2006. Okeechobee, FL. "UF/IFAS Lake Okeechobee Protection Program," by **D.M. Flinchum**

Florida Trail Association. Okeehelée Nature Center, West Palm Beach, FL. February 6, 2006. "The UF Barn Owl Program," by **R.N. Raid**

Everglades Day. Loxahatchee Wildlife Refuge, Boynton Beach, FL. February 11, 2006. "Barn owls as a sustainable means of rodent control in south Florida," by **R.N. Raid**

Presque Isle Audubon Society. Erie, PA. February 21, 2006. "The UF Barn Owl Program," by **R.N. Raid**

Clearwater Audubon Society. Moccasin Lake Nature Park, St. Petersburg, FL. March 6, 2006. "Barn owls as a sustainable means of rodent control in south Florida," by **R.N. Raid**

Broward County Sierra Club. Ann Kolb Nature Center, Hollywood, FL. April 4, 2006. "The UF Barn Owl Program," by **R.N. Raid**

Allegany Nature Pilgrimage 2006. Allegany State Park, Red House, NY. June 2, 2006. "Barn owls: Nature's Mousetraps," by **R.N. Raid**

2006 Joint Annual Meeting of The Florida State Horticulture Society And The Soil And Crop Science Society Of Florida June 4 to 6, Tampa, FL. "Palm Beach County's Changing Landscape: Historical Trends and Future Direction of the Agricultural Reserve," by **D. Parmenter**

TURFGRASS

Fort Lauderdale REC Turf Field Day. March 23, 2006 "Effect of southern chinch bug on weed establishment in St. Augustinegrass" by **R. Cherry**

231st ACS National Meeting, Atlanta, GA, March 26-30, 2006. "Arsenic transport and transformation in golf course soils: field and laboratory experiments," by Y. Cai, Z. Chen, A. Jaramill, **G.H. Snyder, M. Chen,** and J.L. Cisar

Florida Entomological Society Annual Meeting. July 23-26, 2006, Jupiter Beach, FL. "Effect of southern chinch bug on weed establishment in St. Augustinegrass," by **R. Cherry, C. Rainbolt and R. Nagata**

Weed Science Society of America, New York, NY, Feb. 16, 2006. "Southern chinch bug and weed occurrence in St. Augustinegrass," by **C.R. Rainbolt, R. Cherry and R. Nagata**

SUGARCANE

Southern Weed Science Society, Jan. 23, 2006, San Antonio, TX. "Evaluation of hexazinone and diuron combinations for preemergence weed control in Florida sugarcane," by **C.R. Rainbolt**

Sugar Cane Growers Cooperative of Florida, 2006 Agricultural Forum, EREC, Belle Glade, April 27, 2006. "Sugarcane research activities at the University of Florida," by **R. A. Gilbert, G. Kingston, I.V. Ezenwa, K.T. Morgan, S. Daroub, M. Chen, O. Diaz, T. Lang, M. McCray, P. Stansly, R. Cherry, G. Nuessly, C.R. Rainbolt, R. Raid and J. Martin**

2006 Sandland Sugarcane Seminar, Southwest FL. REC, May 12, 2006. "The Effect of Trash Blankets on Insect Damage to Early Season Stubble Sugarcane," by **G.S. Nuessly and H.S. Sandhu**

2006 Sandland Sugarcane Seminar, Southwest Florida REC, May 12, 2006. "Comparison of nutrient sources for sugarcane on mineral soils of Florida," by **R.A. Gilbert, D.R. Morris, R.E. Perdomo, G. Powell, B.Eiland, G. Montes, C.R. Rainbolt and J.M. McCray**

Proc. Assoc. Nat. Resource Ext. Professionals, May 18, 2006, Park City, UT. "The Barn Owl: Farmer's Friend, Teacher's Pet," by **R. N. Raid, and J. Martin**

ISSCT Agronomy Workshop, May 23-26, 2006, Khon Kaen, Thailand. *ISSCT abstracts can be found at:* <http://www.issct.org/agrowrko6.htm>

"International applications of electromagnetic induction measurements for understanding the impact of soil properties on cane growth," by **G. Kingston, N. Gopang, A. McDermott, Y. Luo, J.M. Shine, I.V. Ezenwa, and R. Rice**

"Comparison of nutrient sources for mineral soil nutrition in Florida sugarcane," by **R.A. Gilbert, D.R. Morris, R.E. Perdomo, G. Powell, B.Eiland and C.R. Rainbolt**

Use of trinexapac-ethyl to improve seed quality in mechanically planted sugarcane in Florida," by **C.R. Rainbolt, J.M. Shine, G. Powell, P. Grose, J. Larsen**

2006 Joint Annual Meeting of The Florida State Horticulture Society And The Soil And Crop Science Society Of Florida June 4 to 6, Tampa, FL. "Sugarcane Plant Crop Response to Phosphorus Fertilizer in 2 Locations on Organic Soils in Florida" by **J. M. McCray, Y. Luo, R. W. Rice, and I. V. Ezenwa**

Annual Meeting of ASSCT. June 14-16, 2006, St. Petersburg, FL.

"Sugarcane plant crop response to silicon and magnesium amendments on organic and mineral soils in Florida," by **J. M. McCray and S. Ji**

"Sugarcane yield and morphological responses to long-term flooding," by **R. A. Gilbert, C.R. Rainbolt** and D. R. Morris

"Quantifying the rodent community in the Everglades Agricultural Area and the relative impact of individual rodent species on sugar cane," **J. M. Martin, R.N. Raid,** and L.C. Branch

"Wireworm populations and their control in sand and muck soils of South Florida," by P. Stansly **and R. Cherry**

VEGETABLES

Celery Growers' IPM Workshop. Hudsonville, MI. February 24, 2006. "Starting clean: The importance of reducing initial inoculum levels in the control of celery diseases," by **R.N. Raid**

International Pepper Conference, May 22, Palm Springs, CA. "Evaluation of Bacterial Leaf Spot Resistant Bell Peppers," by **D. Parmenter, K. Pernezny, E. McAvoy, K. Cushman**

[Combined] American Phytopathological Society and Canadian Pathological Society annual meetings, July 29 to August 2, 2006, Quebec City, Canada. "Approaches to Integrated Management of Bacterial Diseases of Vegetables in Florida: Trying Hard--Doing So-So," by **K. Pernezny and R. Nagata**

SOIL AND WATER SCIENCE

2006 Joint Annual Meeting of The Florida State Horticulture Society and the Soil And Crop Science Society Of Florida June 4 to 6, Tampa, FL.

"Soil physical properties in traffic and no traffic areas in golf courses, and relationship with goosegrass growth," by C. Arrieta, P. Busey, and **S. Daroub**

"Soil-test Phosphorus Trends in Everglades Agricultural Area Histosol Profiles" by **Y. Luo, G. Kingston, R.W. Rice, and J.M. Shine, Jr.**

18th World Congress of Soil Science- Frontiers of Soil Science: Technology and the Information Age, Philadelphia, Pennsylvania, July 9-15, 2006 "Development of modern soil science in China as influenced by historical interaction between U.S. and Chinese soil scientists," by **M. Chen and H. H. Cheng**

AWARDS

Dr. José Alvarez was honored at the celebration of the 75th anniversary of the Center for Latin American Studies at the University of Florida held in Gainesville on February 16, 2006. Thirteen emeriti faculty were recognized for their services to the Center

His book, **Cuba's Agricultural Sector**. (UPF, 2004) has been nominated for the 2006 Alice Hanson Jones Prize for North American and Caribbean economic history. The winner will be announced at the association's annual meeting in Pittsburgh next September

Drs. Rob Gilbert, Curtis Rainbolt and Dolen Morris (USDA-ARS) received a Denver T. Loupe best presentation award at the annual American Society of Sugar Cane Technologists meeting in St. Petersburg, FL June 14-16, 2006 for their talk entitled "Sugarcane yield and morphological responses to long-term flooding"

INTELLECTUAL PROPERTY

Scully, B.T., R.T. Nagata, R.H. Cherry, L.E.Trenholm, J.B. Unruh. 2005. Zoysiagrass plant named 'BA-189'. *Assignee:* Florida Foundation Seed Producers and Florida Agricultural Experiment Station. Plant Patent Application No. 11/174,308; filed 7/5/05 (Patent Pending)

Scully, B.T., R.T. Nagata, R.H. Cherry, L.E.Trenholm, J.B. Unruh. 2005. Zoysiagrass plant named 'BA-305'. *Assignee:* Florida Foundation Seed Producers and Florida Agricultural Experiment Station. Plant Patent Application No. 11/174,339; filed 7/5/05 (Patent Pending)

Scully B.T., R.T. Nagata, D.M. Sistrunck, R.H. Cherry, G.S. Nuessly, K.E. Kenworthy, J. DeFranc. 2005. Seashore paspalum turfgrass named 'Aloha'. *Assignee:* Florida Foundation Seed Producers, Florida Agricultural Experimentation Station and Hawaii Agricultural Experiment Station. Plant Patent Application No: 11/188,229; filed 7/25/05 (Patent Pending)

ETHANOL PRODUCTION FROM FLORIDA SUGARCANE

CHALLENGES AND OPPORTUNITIES

Robert Gilbert

Surging energy prices in the US have led to a resurging interest in energy crops in general and sugarcane for energy in particular. One possible use of sugarcane for energy diverts molasses or juice to ethanol production. Dr. Gaspar Korndorfer, Universidade Federal de Uberlandia in Brazil, was recently invited to the Everglades Research and Education Center to provide an update on the Brazil sugarcane industry. He indicated that the ethanol market in Brazil is driven by the fact that all gasoline has 20-25% ethanol added. At the Brazil level of production the ~ 440,000 acres of Florida sugarcane could yield 320 million gallons of ethanol annually. If a local Florida market for ethanol develops, Florida sugarcane producers would have a tremendous opportunity to meet this demand.

However, a challenge to ethanol production in Florida is the byproduct termed vinasse (ethanol stillage), which is produced in large volumes during ethanol production from sugarcane. In Brazil each gallon of ethanol produced generates roughly 12 gallons of vinasse. Clearly, this is a lot of material to deal with, and how it is handled depends largely on the environmental, economic and regulatory conditions of the region of interest.

In Brazil and Australia, vinasse is regarded as a valuable byproduct and it is land-applied as a fertilizer. Vinasse has high potassium, sulfur and micronutrient content. It is often combined with mill mud (filter cake) which has high phosphorus, nitrogen and calcium content to make a complete fertilizer from recycled organic materials. Brazil has invested in a network of stainless steel pipelines to transport vinasse from the mills to lined storage ponds, and installed wells near these ponds to monitor water quality. Another concern with vinasse is its high biochemical oxygen demand, so care must be taken in application to avoid leaching into streams and lakes.



Recent USDA releases available online:

USDA ERS 2006 Edition:

Agricultural Resources and Environmental Indicators: <http://www.ers.usda.gov/publications/arei/>

Topics include

- ♦ Land and Farm Resources
- ♦ Water and Wetland Resources
- ♦ Knowledge Resources and Productivity
- ♦ Agricultural Production Management
- ♦ Conservation and Environmental Policies Affecting Agriculture
- ♦

The **10th ed. Keys to Soil Taxonomy:** http://www.soils.usda.gov/technical/classification/tax_keys/

In all previous issues of this Newsletter, this section has discussed the economic contribution that the Everglades Research and Education Center has provided to the state of Florida and the country since its establishment in 1921. The information was taken from a study conducted in 2001 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). This issue continues with more recent contributions.

Publishing is perhaps one of the most important endeavors of a research institution. At EREC, where education complements the investigation efforts, the wide dissemination of research results is of utmost importance. UF/IFAS/EXTENSION materials are available through the Electronic Data Information Source (EDIS) at <http://edis.ifas.ufl.edu>.

Research/Extension programs at the EREC fall under three major areas (Crop Improvement, Pest Management, Soil and Water) and one supporting field: Economics and Trade. Since its inception and until last December, its 14 scientists (2 full, 2 associate, 4 assistant, and 1 adjunct professors; 3 research associates; 1 post-doctorate associate; and 1 assistant scientist) had placed 151 documents in EDIS. In 2005, these fact sheets received a total of 182,965 "hits". The statistics include each viewing of the HTML version and click-through the "printer-friendly version" as a separate hit. The Table shows a break-down, by major research area and supporting discipline, of both the number of documents and hits:

AREA OF RESEARCH	EDIS DOCUMENTS	HITS IN 2005
Crop Improvement	43	36,628
Pest Management	64	87,065
Soil and Water	13	11,338
Economics and Trade	31	47,934
TOTAL	151	182,965

These statistics testify to the significant contribution of our scientists. They also reveal the interest of our clientele for the output generated by the EREC.

RECENT EDIS PUBLICATIONS

Publications from June of 2005 to August 2006

Alvarez, J., Cherry, R. (2006). Baits for Sampling Wireworms in Southern Florida's Agricultural Fields. SC078 from <http://edis.ifas.ufl.edu/SC078>

Alvarez, J. (2005). Evaluating the performance of Cuba's sugarcane basic units of cooperative production during their first decade. , FE562 from <http://edis.ifas.ufl.edu/FE562>

Alvarez, J. (2005). Potential impact of the free trade area of the Americas on the U.S. sugarcane industry. , FE563 from <http://edis.ifas.ufl.edu/FE563>

Baucum, L., Rice, R. W., & Schueneman, T. J. (2006). Backyard sugarcane. , SSAGR253 from <http://edis.ifas.ufl.edu/SC052>

Baucum, L. E., Rice, R. W., & Schueneman, T. J. (2006). An overview of Florida sugarcane. , SSAGR232 from <http://edis.ifas.ufl.edu/SC032>

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