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## contents



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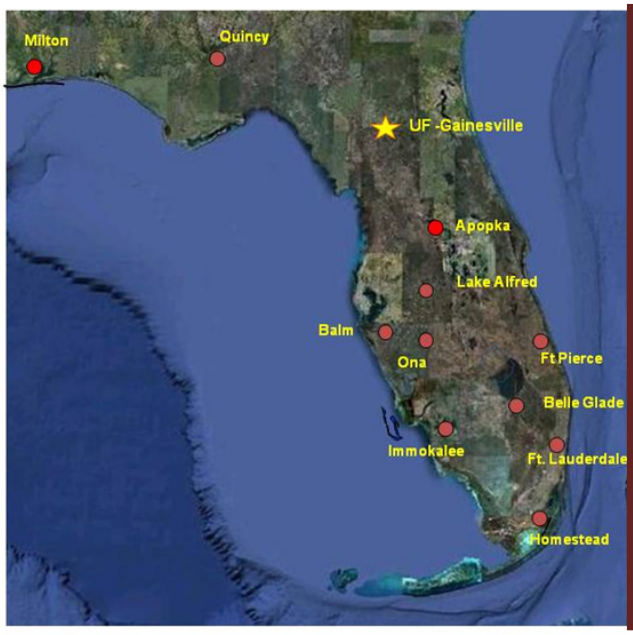
# Soil and Water Science Programs at UF-IFAS Research and Education Centers

## *From the Chair...*

Soil and Water Science (SWS) research, teaching, and extension programs are offered state-wide with approximately one-half of the tenure-track faculty in the department located at the UF-IFAS Research and Education Centers (RECs). At present we have faculty located at nine RECs and long-term plans are to include faculty at two other RECs (West Florida and Mid-Florida RECs). Faculty assignments are: 1.2 FTEs-Teaching, 9.0 FTEs-Research, 4.8 FTEs- Extension, and 2.0 FTEs-Administration. Faculty located at RECs actively offer programs in all thrust areas of the department: (1) Management of nutrients, pesticides, and water; (2) Soil and Water Contamination and Remediation; (3) Carbon dynamics and ecosystem services; (4) Wetlands and aquatic systems; and (5) Modeling and landscape analysis. However, given the regional need, the majority of the faculty is involved in the "Management of nutrients, pesticides, and water" thrust area, as related to sustainable crop productivity and protection of environmental quality. In this newsletter, we present a brief description of our programs at the RECs and their role in addressing soil and water issues in a range of ecosystems using global solutions to solve regional problems.




**UF-IFAS Research and Education Centers (RECs)**

**North Florida Region**
- West Florida REC
- North Florida REC [2]

**Central Florida Region**
- Citrus REC [2]
- Mid-Florida REC
- Gulf Coast REC [4]
- Range Cattle REC [1]
- Indian River REC [2]
- Florida Medical Entomology Laboratory

**South Florida Region**
- Everglades REC [2]
- Southwest Florida REC [2]
- Ft. Lauderdale REC [1]
- Tropical REC [1]

The diverse faculty with expertise in several disciplines, unique research programs, and geographic locations provides excellent opportunities for teaching undergraduate students, training graduate students, and offering professional training in subtropical and tropical ecosystems. For details about research, teaching, and extension programs in agriculture, natural resources, and the environment, visit UF-IFAS web site: http://ifas.ufl.edu

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## North Florida Research and Education Center (NFREC)

The NFREC is one of the largest and the most diverse units of UF/IFAS, consisting of research and education campuses in Quincy and Marianna, Florida. The programs at NFREC-Quincy cover a range of crops, including vegetables, row crops, forages, ornamentals, fruit trees, and forests for pulp, fiber and energy. Two SWS faculty members are located at this center. For additional information visit: http://nfrec.ifas.ufl.edu/.

**Nutrient management:** The research program involves development of appropriate inputs (nutrient sources, composition and water) that improve the economic and environmental sustainability of forage systems in various management scenarios. Emphasis is placed on nitrogen inputs and cycling within forage systems, including the interaction of forage nutrient requirements with varying water inputs and disease pressures. Forages having more desirable phenotypic traits for maximizing soil nitrogen production (N fixing), capture (low nutrient input), or removal (nutrient mitigation) are co-developed and utilized in this program. The extension is focused upon the needs of clientele in forage fertilization and environmental protection. Two programs address these topics by (1) developing and demonstrating currently endorsed forage best management practices and demonstrating potential future trends as they relate to agricultural and environmental sustainability, and (2) providing expertise and outreach information to agents and their clients in the area of forage nutrient demand. For additional information contact Cheryl Mackowiak at: echo13@ufl.edu

## West Florida Research and Education Center (WFREC)

The WFREC has two locations: the campus in Milton and the research facility in Jay. The WFREC offers programs that create and extend knowledge in agriculture and natural resources through teaching, research, and extension to improve the quality of life. At present SWS programs are not offered at this center. The center's long-term plans include a faculty member with expertise in watershed biogeochemistry to address natural resources issues as related to water quality and climate change. In addition, the Soil and Water Science Department (SWSD) is planning to offer an undergraduate degree program from the Milton campus. For additional details visit: http://wfrec.ifas.ufl.edu/

## Congratulations! Summer 2011 Graduates

**PhD**
Debolina Chakraborty (Nair)

**MS**
Stephen Hanks (Fitz)
Rebekah Lee (Osborne)
Christopher Ross (Grunwald)

## Welcome Fall 2011 Incoming Students!

**PhD**
Marcel Barbier (Li)
Chandra Bowden (Shober & Obreza)
Biswanath Dari (Nair & Mylavarapu)
Eunice Eshun (Fitz)
Julia "Ky" Gress (Ma)
John Hallas (Mackowiak & Comerford)
Yuanyuan Huang (Gerber)
Amy Hylkema (Hanlon)
Jiexuan Luo (Hochmuth)
Mary Lusk (Toor)

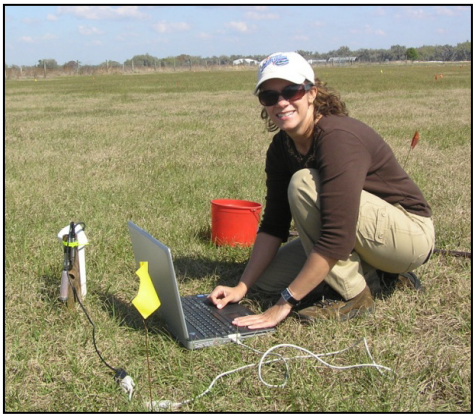
**PhD**
Charles Nealis (Clark)
Christopher Wade Ross (Grunwald)
Debjani Sihi (Inglett)
Christine VanZomeren (Reddy)
Jian Wu (Graham)
Sutie Xu (Silveira)
Minjune Yang (Jawitz)

**MS**
Robert Cox (Gerber)
Shannon Duffy (Osborne)

**MS**
Andrew Engelbrecht (Sartain)
Evelyn Fletcher (Morgan, Nkedi-Kizza, & Obreza)
Susanna Gomez (Daroub)
Swati Goswami (Sharma Inglett)
Travis Knight (Hanlon)
Vijay Nazareth (Grunwald)
Anna Normand (Reddy)
William Schmahl (Jawitz)
Harmanpreet Singh Sidhu (O'Connor)
Lea-Ann Zub (Wilson)

## Range Cattle Research and Education Center (RCREC)

The research program at the RCREC is designed to serve the cattle industry in this portion of the state, although this research program involves a cooperative effort on important statewide problems. Cattle in south Florida are facing constantly changing economic and production challenges. This unique subtropical environment provides direct and indirect impacts on the beef and dairy industry. Direct impacts include climatic, water table, and soil influences on forage and animal production; and associated disease and insect problems. Indirect impacts include potential use of by-products from other agricultural industries as animal feeds and environmental quality. One SWS faculty is located at this center. For additional information visit: http://rcrec-ona.ifas.ufl.edu/.



**Maria Silveira is measuring carbon dioxide fluxes from grasslands**

**Biogeochemistry of grasslands**: The research component of the SWS program focuses on the following areas: (1) to understand fundamental relationship between soil, forage, and livestock production and determine management practices that utilize these resources more efficiently, (2) to develop economically viable soil fertility programs for major forage crops, (3) to investigate the beneficial use of animal and municipal by-products as nutrient sources for forage production, and (4) to examine the impacts of agriculture on water quality and determine alternatives to protect Florida's unique ecosystem. The extension program provides information that will help producers dealing with soil fertility and water quality issues and to support and promote the ecological benefits of cattle rangelands to Florida's urban society. For details contact Maria Silveira at: mlas@ufl.edu.

## Gulf Coast Research and Education Center (GCREC)

The GCREC offers programs that develop and disseminate new scientific knowledge and technology regarding commercial agriculture (small fruits, vegetables, ornamentals, and other related commodities) that assist Florida's producers to be competitive in the world economy. Four SWS faculty members are located at this center. For additional information visit: http://gcrec.ifas.ufl.edu/.

**Water conservation for strawberry and vegetable crop systems**: Research and extension includes (1) reduction of overhead sprinkler irrigation for bare-root transplant establishment, (2) non-irrigation alternatives for cold protection of strawberry production fields, (3) water requirements for genetically altered lantana camara nursery and landscape plants, (4) reducing nursery and landscape water use through genetic alteration of nandina, and (5) onsite sewage nitrogen reduction strategies using passive removal technologies. For details contact Craig Stanley at: cdstan@ufl.edu.

**Soil, water and nutrient management in urban landscapes:** Extension and research programs focus on nutrient and soil management to minimize water quality degradation in an urban environment. Current research projects include: (1) evaluation of nutrient leaching from mixed landscapes, (2) turfgrass establishment irrigation for Southwest Florida, and (3) development of landscape fertilizer best management practices (BMPs). Close linkages with county urban horticulture extension faculty to design and deliver educational programming related to urban soil management and fertilizer use and helps develop soil and water curriculum for youth. For details contact Amy Shober at: alshober@ufl.edu.

**Fate and transport of organic and inorganic contaminants in urban watersheds:** This research and extension program focuses on the interplay of chemistry, hydrology, and ecology in regulating the fate and transport of nitrogen, phosphorus, and organic contaminants in urban watersheds and potential impacts on streams, rivers, and estuaries. The extension program seeks to (1) develop cost-effective and innovative tools to manage nutrients and organic contaminants, and (2) promote the use of new practices among stakeholders to prevent water quality impairment in the environment. For details contact Gurpal Toor at: gstoor@ufl.edu.

## Indian River Research and Education Center (IRREC)

The IRREC provides regional leadership to agriculturalists with research and extension programs. Specific SWS research areas include: water and nutrient management for citrus and flatwoods soils; utilization of soil amendments; micro-irrigation of horticultural crops in humid regions; leadership in citrus, vegetable, and water management state extension programs on the east coast of Florida; and aquatic toxicology. Two SWS faculty are located at this center. For additional information visit: http://irrec.ifas.ufl.edu/.

**Soil sampling for Cu contamination evaluation**

**Soil Biogeochemistry of Nutrients and Contaminants**: Research focuses on biogeochemistry of nutrients and contaminants, development of BMPs for sustainable agriculture in South Florida, remediation of contaminated soil and water resources, and nutrient/waste management to enhance fertilizer use efficiency and water quality. The outcomes are expected to improve the understanding and/or advance knowledge in chemical interactions of nutrients and contaminants, organic/inorganic transformation reactions, and interfacial processes in soil, to facilitate the development of BMPs beneficial to humans and the environmental health in the Indian River area and South Florida. For details contact Zhenli He at: zhe@ufl.edu.

**Vallisneria americana toxicity assay**

**Environmental Toxicology and Risk Assessment:** Research and extension programs focus on: (1) identifying how land and water management (i.e., horticultural/agricultural crop production, urban development, etc.) impacts water quality and natural resources, and (2) identifying strategies to minimize negative impacts on natural resources. Primary interests are related to organic pesticides and emerging contaminants. Current research interests include: risk identification for sea grasses and other aquatic organisms exposed to pesticides from the surrounding Indian River Lagoon watershed, determination of potential interactions and effects of mixtures of pesticides and other emerging contaminants on the toxicity to aquatic plants and animals, and determination of the potential for bioaccumulation of endocrine disrupting compounds in food crops irrigated with reclaimed municipal water. Extension program focuses on helping stakeholders identify (1) the relationship between their land/water management practices and potential impacts on water quality and natural resources, and (2) methods for minimizing negative impacts. For details contact Chris Wilson at: pcwilson@ufl.edu.

## Citrus Research and Education Center (CREC)

The CREC is the oldest and largest off-campus experiment station in UF-IFAS and is unique among research centers in that it focuses entirely on one commodity, citrus. Two SWS faculty members are located at this center. For additional information visit: http://www.crec.ifas.ufl.edu/.

**Nutrient management and precision agriculture**: This program conducts research: (1) to identify soil spatial variability, its causes, and impacts on the environment, citrus growth, nutrition and yield, (2) to develop reliable, easily measured indicators of important soil and crop factors linked to growth and yield, (3) to develop appropriate site-specific amendments or management options for soil improvement, and (4) to develop and test the best irrigation and variable rate technologies (VRT) for improving fertilizer use efficiency, profitability and groundwater protection in variable citrus groves. For details contact Arnold Schumann at: schumaw@ufl.edu.

**Soil microbiology program:** Increase understanding of the microbiology of citrus and citrus soils, for control of *Phytophthora spp.* and their interactions with soil pests to promote citrus root health. Study survival, spread, and host resistance to citrus canker *caused by Xanthomonas citri* subsp. *citri* to develop more effective control measures. This program also focuses on the impact of citrus and other crop mycorrhizas on growth responses. For details contact James Graham at: jhgraham@ufl.edu.

## Mid-Florida Research and Education Center (MFREC)

The MFREC located in Apopka focuses on ornamental and floriculture crops along with small fruit research. Richard Beeson is teaming with Amy Shober at GCREC, Balm to quantify nitrogen and phosphorus leaching though these mixed landscapes for another nine months. At present SWS programs are not offered at this center. The center's long-term plans include a faculty member with expertise in soil science to develop an in-depth program relevant to ornamental and floriculture crops and urban lands. For additional information visit: http://www.mrec.ifas.ufl.edu/.

## Research and Extension Programs—UF-IFAS-RECs: South Florida Region

## Everglades Research and Education Center (EREC)

The EREC conducts research and extension programs to improve agricultural practices, conserve and protect soil, water, and wildlife resources, and develop cost effective and energy efficient systems that will permit the continued existence of agriculture in southern Florida. Two SWS faculty members are located at this center. For additional information visit: http://erec.ifas.ufl.edu/.

**Nutrient management and water quality**: This program conducts research on phosphorus chemistry and transformation in organic soils; Best Management Practices (BMPs) to reduce phosphorus loads in the Everglades Agricultural Area; and computer simulation models to predict phosphorus availability to plants, as well as in environmental applications. Research projects involve developing and testing BMPs to help growers reduce environmental impacts from their farming operation in the sensitive Everglades region. Research projects and active extension and outreach program have led to consistent improvements in water quality out of the EAA. This program has been instrumental in keeping growers in the area in compliance with state regulation imposed on them per the Everglades Forever Act. For details contact Samira Daroub at: sdaroub@ufl.edu.

**Soil subsidence on muck soils is demonstrated using the subsidence post located near Belle Glade FL. The top of the post was the soil level in 1924.**

**Assessing phosphorus fertilizer management for leafy greens production on muck soils**

**Biogeochemistry:** This program offers research and extension programs on biogeochemical processes, carbon sequestration, soil organic matter and nutrient dynamics, and land management impacts on soil and water quality in agricultural, wetland, and urban systems. Research and extension projects include developing new and improved agricultural management strategies for the subsiding soils of the EAA, improving sugarcane, vegetable, and turf production through optimized nutrient and water management, increasing effectiveness of Everglades Stormwater Treatment Area (STA) wetlands, and evaluating relationships between wetland restoration and soil and water quality. These efforts lead to better management of natural resources and improved recommendations for agricultural producers and water managers in the EAA and throughout Florida. For details contact Alan Wright at: alwr@ufl.edu.

## Ft. Lauderdale Research and Education Center (FLREC)

The FLREC offers programs that focus on the protection of the environment of South Florida by developing -- in partnership with other institutions -- technologies for sustainable maintenance and management of landscapes -- and to reduce the impact of invasive animals and plants on the area's natural and urban habitats. One faculty member is located at this center. For additional information visit: http://flrec.ifas.ufl.edu/.
Ecological modeling: Research and extension programs are offered in the following areas: landscape and ecosystem ecology, particularly in wetland and estuarine systems; modeling integrated physical, chemical, and biological interactions of landscape dynamics; and integrating natural system restoration with the human dimensions. For details contact Carl Fitz at: cfitz@ufl.edu.

## Southwest Florida Research and Education Center (SWFREC)

The SWS program at the SWFREC provides a balance of research and extension activities relating to crop nutrition and water management. Best management practice (BMP) development and implementation in southwest Florida is relatively recent (<10 years). Therefore, growers need field data validating the effects of BMPs on production and profits in conditions unique to this area of the state. Two faculty members are located at this center. For additional information visit: **http://www.imok.ufl.edu/**.

**Soil fertility and management:** Activities of this program include development of environmentally sound management strategies for nutrients in waste streams, reclamation of disturbed sites including phosphate mining operations, research and extension efforts dealing with biofuels through the Hendry County Sustainable Biofuels Center, and the Certified Crop Adviser Program. For details contact Ed Hanlon at: eahanlon@ufl.edu.

**Soil fertility and water management:** Research emphasis includes: (1) modeling of soil nitrogen and phosphorus bioavailability with focus on environmental cycling and crop uptake; (2) improved nutrient and water use efficiencies through the development of expert systems for citrus, vegetable, and sand-land sugarcane production; and (3) establish N and P best management practices that provide maximum environmental protection while maintaining highest possible economical yields. The extension program provides growers of Florida with science-based information on improved soil fertility and water management methods and advises them on implementation of best management practices that sustain yields while protecting water quality. For additional details contact Kelly Morgan at: conserv@ufl.edu.

## Tropical Research and Education Center (TREC)

The TREC research, teaching, and extension programs focus on tropical and subtropical fruit crops, tropical and temperate vegetable crops, ornamental crops, and natural resource conservation of southern Florida. One faculty member is located at this center. For additional information visit: **http://trec.ifas.ufl.edu/**.

**Soil and Water Management:** Primary emphasis of soil and water science program is on soil and water management as related to water quality. In addition, the program also addresses water and environmental issues that impact crop production grown on soils over a shallow aquifer and in proximity to Everglades National Park, Biscayne National Marine Park, Florida Bay, and major well fields, which provide drinking water to the several million people in neighboring urban areas. For details contact Yuncong Li at: yunli@ufl.edu.

## Teaching Programs

The SWSD has 1.2 teaching FTEs at the RECs. Faculty with teaching appointments are: Samira Daroub, Ed Hanlon, and Zhenli He. These faculty teach on-line courses for both undergraduate and graduate students. In addition, Amy Shober, Gurpal Toor, and Yuncong Li teach laboratory sections of introductory soils course at their respective RECs. All RECs faculty are actively involved in graduate education.

The Interdisciplinary undergraduate Degree in Environmental Management in Agriculture and Natural Resources (EMANR) is managed by our department and is currently offered at the IRREC. Plans are to offer this program at other REC locations including Plant City, GCREC; Milton, WFREC, and Apopka, MFREC. This major is for students who desire education in environmental management with substantial emphasis on agriculture and natural resources. Farmers and those working with the agricultural community must be able to deal in an informed manner with an astonishing array of regulations and permitting requirements established by various agencies and jurisdictions. In addition, farmers must provide food and fiber to our growing population in an efficient and environmentally-sound manner. The EMANR major is designed to integrate the mix of agricultural and environmental issues, which need to be addressed in modern agriculture. For additional information visit: **http://soils.ifas.ufl.edu/academics/emanrmajor.htm** .

## Faculty, Staff, and Students

***Congratulations to our Faculty and Students ….***

**2011 Emil Truog Soil Science Award**
**Alex Cheesman** was selected to receive the 2011 Emil Truog Soil Science Award given for best dissertation. Alex is currently a post-doctoral research associate in the Smithsonian Tropical Research Institute in Panama. He earned his BS and MA degrees at Cambridge University, Cambridge, U.K., and PhD degree from the SWS Department (Advisors: Reddy and Ben Turner). His dissertation is titled, ***"Biogenic phosphorus in palustrine wetlands: Sources and stabilization."*** This award was presented at the annual meeting (October 16-18, 2011) of the Soil Science Society of America, San Antonio, Texas.

**Anna Normand** – MS Student (Reddy) received a Phi Kappa Phi Fellowship for $5000 (2011 – 2012). http://www.phikappaphi.org/Web/Awards/Fellowship.html.

**Rupesh Bhomia** (Reddy) – Davidson Travel Grant Recipient (International Travel)
**Patrick Moran** (Supervisor: Mark Clark) – Coordinator of UF Clean Water Campaign (CWC)
**Rupesh Bhomia**, **Lisa Gardner Chambers** (Reddy), **Davie Kadyampakeni** (Morgan & Kizza), and **Shengsen Wang** (Schumann & Timothy Spann) all received the Doris Lowe and Earl and Verna Lowe Scholarship ($1500 each) through the UF-CALS Dean's Office.

**12th Annual Soil and Water Science Forum Awards**
**Best Oral Presentation: Cory Krediet** (Teplitski)
**Best Poster Presentations: Subodh Acharya** (Mylavarapu); **Scott Edmundson** (Wilkie); **Julie Padowski** (Jawitz); **Ignacio Rodriguez-Jorquera** (Toor & Nancy Denslow)
**Oral Presentation (Honorable Mention): Lisa Chambers** (Reddy)
**Poster Presentations (Honorable Mention): Xiaoling Dong** (Ma); **Daniel Irick** (Li & Inglett); **Xiaolin Liao** (Inglett)

### Distinguished Seminar Speakers

**Dr. Chris Field** was the keynote speaker at the 12th Annual Soil and Water Science Research Forum on September 9, 2011. His presentation was entitled **"Climate Change in Skeptical Era."**

Dr. Field is the founding director of the Carnegie Institution's Department of Global Ecology, Professor of Biology and Environmental Earth System Science at Stanford University, and Faculty Director of Stanford's Jasper Ridge Biological Preserve. Field's research emphasizes impacts of climate change, from the molecular to the global scale. He has, for nearly two decades, led major experiments on responses of California grassland to multi-factor global change. Field has served on many national and international committees related to global ecology and climate change. He was a coordinating lead author for the fourth assessment report of the Intergovernmental Panel on Climate Change and a member of the IPCC delegation that received the Nobel Peace Prize in 2007. In September, 2008, he was elected co-chair of Working Group 2 of the IPCC, and will lead the next assessment on climate change impacts, adaptation, and vulnerability. He is a fellow of the American Association for the Advancement of Science and an elected member of the American Academy of Arts and Sciences and the National Academy of Sciences. Field received his PhD from Stanford in 1981 and has been at the Carnegie Institution for Science since 1984.

**Dr. William J Mitsch** is Distinguished Professor of Environment and Natural Resources at The Ohio State University and Director of the University's Wilma H. Schiermeier Olentangy River Wetland Research Park. His research and teaching has focused on wetland biogeochemistry, wetland creation and restoration, ecological engineering, and ecosystem modeling. Among his awards, Mitsch and his frequent colleague and co-author Sven Jørgensen of Denmark received the 2004 Stockholm Water Prize from King Carl XVI Gustaf of Sweden on August 19, 2004 in Stockholm, Sweden. He also received the National Wetland Research Award (1996) from the U.S. Environmental Protection Agency and Environmental Law Institute, the Theodore M. Sperry Award (2005) for a career in ecosystem restoration from the Society for Ecological Restoration, and a Society of Wetland Scientists Lifetime Achievement Award (2007). Dr. Mitsch is appointed as a Courtesy Professor in the SWSD.

**Dr. Patrick Megonigal** is a Senior Scientist at the Smithsonian Environmental Research Center, where he serves as Deputy Director of the Center, Principal Investigator of the Biogeochemistry Laboratory, and Director of the Global Change Research Wetland. His major research interests concern wetland ecosystems, with an emphasis on the impacts of global change on wetland carbon cycling. Dr. Megonigal was an Assistant Professor of Biology at George Mason University before joining the Smithsonian Institution in 2001. He is a Past President the Society of Wetland Scientists, past Chair of the Division S-10 of the Soil Science Society of America, and the Curator of *Dig It! The Secrets of Soil*.

## Hugh Popenoe (1929-2011)

Dr. Hugh Popenoe, age 82 of Archer passed away Wednesday, September 21, 2011 in Gainesville.

Born in 1929 in Tela, Honduras, Hugh devoted his life to the tropical world, its people, and its agriculture. His education in Guatemala prepared him for a BS in Irrigation and his first employment in Thailand. He entered the University of Florida where he studied for his PhD on the effects of shifting cultivation on basic soil properties near Lake Isabal in Guatemala. He spent the rest of his professional life teaching at the University as a professor in the Soil and Water Science Department with affiliate faculty status in Botany, Agronomy, and Geography departments, and being involved in various international activities. After directing the Caribbean Research Program, he was appointed Director of the Center for Tropical Agriculture in 1965; Director of International Programs in Agriculture in 1966. He initiated and was Director of the Florida Sea Grant College from 1971 to 1978 and performed the duties of Chairman of the Council of Sea Grant Directors during this time. At the National level he chaired the joint Committee of Agricultural Research and Development of the Board of International Food and Development and also served on the Board of Science and Development of the National Research Council (NRC) and chaired the Advisory Committee of Technology Innovation. Hugh was the chairman or committee member of 16 NRC publications, a member of the National Science Foundation International Advisory Committee, and the founder and president of the American Water Buffalo Association.

Internationally, Hugh was a past President and Emeritus Board member of La Escuela Agricola Panamericana (Zamorano) in Honduras. He was a trustee of the International Foundation for Science and a founding board member of the Organization for Tropical Studies. He was a fellow of the Soil Science Society of America, the American Society of Agronomy, the American Association for the Advancement of Science, and the American Geographical Society. He was awarded the Science Pioneer Prize of the Egyptian Veterinary Association of Buffalo Development, and was a Visiting Lecturer on Tropical Public Health at the Harvard School of Public Health. In 1964 he was honored as "Professor of the Year in Agriculture" and continued teaching throughout his years as an administrator. Of all his activities and accomplishments, Hugh was most proud of his more than 300 graduate students and of his honor in 2009 as the first recipient of the Charles B. Heiser, Jr. Mentor Award, which he received from the Society for Economic Botany in recognition of substantially impacting the training and professional development of students.

He and his sister, Dr. Marion Popenoe de Hatch, donated their colonial home in Antigua, Guatemala, built in 1636, to the Universidad Francisco Marroquin to preserve the colonial heritage of Latin America. Continuing his interest in preservation, Hugh was a supporter of the Legacy Institute for Nature and Culture and the Conservation Trust of Florida. This past year was spent in preserving an 1873 board and batten school house on his property in Levy county. He is survived by Betty Haeseker, Marion Popenoe de Hatch, Sally Popenoe and several nieces and nephews.

## SWS Alumni

In our newsletter, we would like to include news from our alumni and their success stories and accomplishments. Please provide highlights of your current activities, so that we can include them in future SWSD newsletters. Please e-mail information and a photograph to Michael Sisk at mjsisk@ufl.edu.