

SAMIRA H. DAROUB

Associate Professor

University of Florida • Everglades Research and Education Center
Soil and Water Science Department • 3200 E. Palm Beach Rd
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EDUCATION

Ph.D. Michigan State University, East Lansing, MI. December, 1994.

Major: Crop and Soil Sciences; Soil Chemistry

Dissertation: The effect of tillage on phosphorus transformations in soils.

M.Sc. The American University of Beirut, Lebanon. February, 1986.

Major: Soil Sciences.

Thesis: Urea Phosphate behavior in incubated and calcareous soil in relation to iron availability.

B.Sc. in Agriculture and a Diploma in Agricultural Engineering, The American University of Beirut, Lebanon. September, 1983.

PROFESSIONAL EXPERIENCE

Associate Professor, University of Florida, Soil and Water Science Department, Institute of Food and Agricultural science, Everglades Research and Education Center, Belle Glade, FL, 33430. July 1, 2006 – Present

Assistant Professor, University of Florida, Soil and Water Science Department, Institute of Food and Agricultural science, Everglades Research and Education Center, Belle Glade, FL, 33430. May 16, 2000 – June 30, 2006

- Tenure accruing position: 60% teaching, 40% research. Responsible for teaching courses in soil sciences, soil chemistry, environmental soil sciences, and irrigation. Classes are part of the distance education programs at the University of Florida. Responsibilities include developing Web based classes in General Soil Sciences.
- Research interests: Environmental issues dealing with soil and water quality in the Everglades. Develop and implement Best Management Practices to reduce phosphorus leaching in soils and movement into surface waters in the Everglades. Subsidence of organic soils in the Everglades. Computer simulation of crop growth and development

Research Associate, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI, 1995- February 2000.

- Develop and test a crop model to simulate phosphorus dynamics in the soil and uptake by the plant. This work was done in collaboration with Centro Inernacional de Agricultura Tropical (CIAT), the International Center for Agricultural Research in the Dry Areas (ICARDA), and the International Fertilizer Development Center (IFDC). The phosphorus model will be incorporated into comprehensive crop simulation models.
- Taught a graduate class in Soil Chemistry with laboratory during spring semesters 1995 and 1996, and advised students in soil and plant analysis techniques.

- Investigated the effect of management practices utilized in sustainable agriculture and organic based management systems on phosphorus chemistry and availability in soils. This research was part of a long-term ecological (LTER) research project in row crop agriculture on the Kellogg Biological Research Station in Hickory Corners, Michigan funded by the National Science Foundation.

Graduate Student, Department of Crop and Soil Sciences, Michigan State University. 1989-1994.

Project: The effect of tillage practices on the fate of phosphorus from plant residues.
Advisor: Dr. Boyd G. Ellis.

Instructor, the Soil, Irrigation, and Mechanization Department, the American University of Beirut, Beirut, Lebanon. 1985-1988.

Taught undergraduate classes in soil science. Ran the soil, water and plant analysis laboratory, and gave recommendations for farmers and agricultural companies in Lebanon and the Middle East.

Graduate Student and Assistant, The Soil, Irrigation, and Mechanization Department, the American University of Beirut, Beirut, Lebanon. 1983-1985.

Project: Urea phosphate behavior in incubated and cropped calcareous soils in relation to iron availability. Advisor: Dr. John Ryan.

TEACHING EXPERIENCE

Current classes at the University of Florida

SOS 3022. Introduction to Soil Science in the Environment. Every Fall. Distance Education
Fundamentals of Soil Science, their physical, chemical and biological properties in relation to plant growth and environmental problems. The class is offered through distance education with lecturing done live in the Ft. Lauderdale campus. The class is broadcast live through videoconferencing to different UF Research and Education Centers (RECs). In addition, an Internet section is offered where students can take the class on line.

SOS 3022 L Introduction to Soil Science in the Environment Laboratory. Every Fall. The soils laboratory covers the fundamental principles of soil properties and analysis.

SOS 4116. Environmental Nutrient Management. Even Spring. The course covers the basic principles of plant growth and plant nutrition. Essential plant nutrients are examined in relation to their function in plants, physical and chemical diagnosis of their deficiencies in plants and their chemistry in the soil. The class is also offered through Distance Education to UF RECs.

AOM 3734. Irrigation Principles and Practices in Florida. Odd Spring. Covers the fundamentals of irrigation principles and water resources in Florida.

SOS 5050 – Soil Science for Environmental Professionals. (Internet) Every Spring. The course is intended for graduate students who have no or minimal knowledge of soil science and is offered as part of the off-campus Masters of Environmental Science program. The

course covers the basic soil properties (physical, chemical, and biological) as well as soil processes. The course also covers the management of acid, salt-affected, and anaerobic soils. The class consists of three modules: Module I: Overview of Soils; Module II: Soil Processes; and Module III: Soil Management

SOS 5116 – Environmental Nutrient Management. (Internet) Even Spring. The course covers the plant essential elements, the different nutrient sources, plant nutrient terminology, and chemical properties of commercial plant nutrient sources as they relate to their utilization and environmental impact. The course discusses in detail the basic chemical reactions of plant nutrient sources with the soil and the environmental fate of the nutritional elements whether it be loss by leaching, plant uptake, fixation or soil retention. This class is also offered as an Internet based class in support of the off-campus Masters of Environmental Science program.

SOS 5406 – Soil and Water Chemistry. (Internet) Fall 2006 and then odd Fall. Graduate class designed for the Distance Education Environmental Science Program students. Class covers fundamentals of soil and water chemistry including fundamental principles of the properties of soil components and soil reactions that affect plant growth and environmental quality.

Guest Lectures

SOS 6932 & 5235 South Florida Ecosystems, and Florida Earth Project short course . Guest lectures and field tours, 2000- 2006. Title of lecture “Soils of South Florida”.2000-2006

Aquatic Weed Control short course, title of lecture “Chemistry of Submerged Soils” 2000-2001.

Other Classes Taught

CSS 850, Spring Semester 1995 and 1996. Michigan State University, Crop and Soil Sciences Dept., East Lansing, MI. A graduate class in Soil Chemistry including lectures and laboratory sessions. The class covered the fundamental principles of soil components and soil reactions that affect plant growth and environmental quality.

CSS 310. Soil management and Environmental Impacts. Guest Lecturer, Crop and Soil Science Department, Michigan State University, Fall, 1999.

Soil, Irrigation, and Mechanization 265. The American University of Beirut, Beirut, Lebanon. Fall semesters 1987 and 1988. A soil fertility and plant nutrition class offered to senior students, covering plant nutrient deficiencies and fertilizers application.

Soil, Irrigation, and Mechanization 215. The American University of Beirut, Beirut, Lebanon. Spring semester, 1987. An undergraduate introductory class in soil physical and chemical properties, and management, including laboratory sessions in soil and water analysis techniques.

Workshops attended

Southern Regional Teaching workshop. 2006. Mississippi State University. MS. August 7-9, 2006.

Annual CALS Teaching Enhancement Symposium of the College of Agriculture and Life Sciences, the University of Florida Hotel and Conference Center in 2000-2003, and 2006.

“Cooperative learning and continuous quality improvement: Building student teams for comprehending critical concepts”. October, 1995. A one-day workshop facilitated by Karl A. Smith of the University of Minnesota.

“International training program on computer simulation of crop growth and management responses”. May, 1997. A two-week workshop offered by the International Fertilizer Development Center, Muscle Shoals, Alabama.

PROFESSIONAL ORGANIZATIONS

The Alpha Alpha chapter of Phi Beta Delta, an Honor Society for International Scholars.
The American Society of Agronomy.
The Soil Science Society of America.
The International Soil Science Society.

SCHOLARSHIPS

Awarded a Full scholarship from the **Hariri Foundation**, a non-profit organization, to study for a doctoral degree at Michigan State University. Total award: 89,000 \$.

SKILLS

Excellent laboratory expertise in soil, water, and plant analysis. Knowledge in running standard laboratory equipment including flow injection analysis (nitrogen and phosphorus), atomic absorption spectrometry, flame emission, pH, conductivity, and experience in using radioisotopes.

Computer skills: Knowledge in using various of software including **Sigma Plot, SAS, Power Point, MstatC, chemical speciation programs, crop modeling programs including CERES and CROPGRO, Microsoft Word, Word Perfect, Excel, and Quattropro.**

LANGUAGES

Arabic (native), English (highly proficient) and Spanish (beginner).

OTHER ACTIVITIES

Cultural Consultant in Strategies to Advance the Internationalization of Learning (SAIL). Michigan State University. May 1991 to 1996.

Participant as a soil expert in an archaeological dig in Hasaka, Syria. Summer 1988.

PUBLICATIONS

Chapters in Books

- Daroub, S. H., and Snyder, G. H. 2001. Soils of south Florida. In: Florida Earth Journal. S. Bronson (ed), University of Florida, IFAS, Gainesville.
- Daroub, S. H., and Snyder, G. H. 2007. The chemistry of plant nutrients in soil. *In*: L. E. Datnoff (Ed.) Mineral Nutrition and Plant Disease. American Phytopathological Society. In Press

Journals

- Chen, M., Daroub, S. H. Lang, T. A., and Diaz, O. A. 2006. Specific conductance and ionic characteristics of farm canals in the Everglades Agricultural Area, Florida. *Journal of Environmental Quality*. 35:141-150.
- Diaz, O. A., Daroub, S. H., Stuck, J. D., Clark, M., Lang, T. A., and Reddy. K. R. 2006. Sediment Inventory and Phosphorus Fractions for Water Conservation Area Canals in the Everglades. *Soil Science Society of America Journal*, 70:863-871.
- Chen M., Daroub. S. H, and Nadal. V. 2006. Comparison of two digestion methods for determining total phosphorus in canal water. *Communications in Soil Science and Plant Analysis* 37:2351-2363.
- Kabengi, N., 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*.297:86-94.
- Kabengi, N., Rhue, R. D and Daroub, S. H. 2006. Using flow calorimetry to determine the molar heats of cation and anion exchange and the point of zero net charge (PZNC) on amorphous aluminum hydroxides. *Soil Science*. 171:13-20.
- Park, D. M., J. L. Cisar, G. H. Snyder, J. E. Erickson, S. H. Daroub and K. E. Williams. 2005. Comparison of Actual and Predicted Water Budgets from Two Contrasting Residential Landscapes in South Florida. *in* Proceedings from the 10th International Turfgrass Research Conference, Llandudno, Wales. v.10. 2:885-890
- Glaz B., Morris, D. R., and Daroub, S.H. 2004. Periodic flooding and water table effects on two sugarcane genotypes. *Agronomy Journal*.96:832-838.
- Glaz, B., Morris, D. R., and Daroub, S.H. 2004. Sugarcane photosynthesis, transpiration, and stomatal conductance due to flooding and water table. *Crop Science* 44:1633-1641.
- Morris, D. R., Glaz, B. and Daroub, S. H. 2004. Organic matter oxidation potential determination in a periodically flooded Histosol under sugarcane. *Soil Science Soc. Am .J.* 68:994-1001.
- Morris, D. R., Glaz, B. and Daroub, S. H. 2004. Organic soil oxidation potential due to periodic flood and drainage depth under sugarcane. *Soil Science*: 169: 600-608.
- Rodrigues de Lima, L., Daroub, S. H., Rice, R. W., and Snyder, G. H. 2003. Comparison of three soil tests for estimating plant-available silicon. *Communications in Soil Science and Plant Analysis*. 34(15&16):2059-2071.

- Daroub, S. H., Gerakis, A., Ritchie, J. T., Friesen, D. K., and Ryan, J. 2003. Development of a soil-plant phosphorus simulation model for calcareous and weathered tropical soils. *Agricultural Systems*. 76:1157-1181.
- Chen, M. , Daroub, S. H., Ma, L. Q., Harris, W. G., and Cao, X. 2002. Characterization of lead in soils of a rifle/pistol shooting range in central Florida, USA. *Soil and Sediment Contamination*. 11:1-17.
- Chen, M., Glaz, B., Gilbert, R., Daroub, S. H., Barton, F. E. II, and Wan. Y. 2002. Near Infrared reflectance spectroscopy analysis of phosphorus in sugarcane leaves. *Agronomy Journal* 94:1324-1331.
- Daroub, S. H., Ellis, B. G., and Robertson, G. P. 2001. Effect of cropping and low-chemical input systems on soil phosphorus fractions. *Soil Science*. 166:281-291.
- Daroub, S. H., Pierce, F. J., Ellis, B. G. 2000. Phosphorus fractions and fate of phosphorus-33 in soils under plowing and no-tillage. *Soil Science Society of America Journal* 69:170-176.

Research Reports

- Daroub, S. H., T. A. Lang, O. A. Diaz, M. and M. Chen. 2006. Implementation and verification of BMPs for reducing P loading from the Everglades Agricultural Area. Submitted to the Everglades Agricultural Area Environmental Protection District, and the South Florida Water Management District. July 2006. 58pg.
- Adorasio, C., Bedregal, C., Daroub, S., DeLeon, J., Edwards, M., Garvey, C., Madden, J., McGinnes, P., Miessau, C., Pescatore, D., Powell, B., Sievers, P., Van Horn, S., Veen, T., Vega, J., Xue, S.K. , and Zhao, H. 2006. Phosphorus controls for the basins tributary to the Everglades Protection Area. 2006 South Florida Environmental Report. Water Year 2005, Chapter 3, South Florida Water Management District, West Palm Beach, FL (peer reviewed).
- Daroub, S. H., T. A. Lang, O. A. Diaz, M. Chen, and J.D. Stuck. 2005. Everglades Agricultural Area BMPs for reducing particulate P transport. Final Report submitted to the Florida Department of Environmental Protection as partial fulfillment of requirements of 319h project WM754, June 2005. 301pg.
- Adorasio, C., Bedregal, C., Daroub, S., McGinnes, P., Miessau, C., Pescatore, D., Powell, B., Sievers, P., Van Horn, S., Vega, J., Edwards, M., and Xue, S.K. 2005. Phosphorus controls for the basins tributary to the Everglades construction project. 2005 South Florida Environmental Report. Water Year 2004, Chapter 3, South Florida Water Management District, West Palm Beach, FL (peer reviewed).
- Daroub, S.H., T.A. Lang, O.A. Diaz, M. Chen, and J.D. Stuck. 2004. Annual report Phase XII: Implementation and Verification of BMPs for Reducing P Loading in the EAA and Everglades Agricultural Area BMPs for Reducing Particulate Phosphorus Transport. University of Florida, EREC, Belle Glade, May 2004. Submitted to the Everglades Agricultural Area Environmental Protection District and The Florida Department of Environmental Protection.

- Bedregal, C., Daroub, S., Donovan, B., Marshall, E., McGinnes, P., Miessau, C., Pescatore, D., Sievers, P., Stuck, J.D., Van Horn, S. , and Vega, J., 2004. Performance and Optimization of Agricultural Best Management Practices, 2004 Everglades Consolidated Report, Water Year 2003, Chapter 3, South Florida Water Management District, West Palm Beach, FL (peer reviewed).
- Daroub, S. H., Stuck, J.D., Lang, T.A., Diaz, O.A., Clark, M.W., Reddy, K.R. 2003. Water Conservation Area canal sediment phosphorus studies – Inventory, release and transport studies. University of Florida, 147pp. Submitted to the Everglades Agricultural Area Environmental Protection District.
- Daroub, S. H., Stuck, J. D., Lang, T. A., Diaz, O. A, and Chen, M. 2003 Annual report Phase XI: Implementation and verification of BMPs for reducing P loading in the EAA and Everglades Agricultural Area BMPs for reducing particulate phosphorus transport. University of Florida, EREC, Belle Glade, April 2003. Submitted to the Everglades Agricultural Area Environmental Protection District and Florida Department of Environmental Protection.

*Recent Proceedings and Abstracts
of Conferences*

A. International – Invited

- Daroub, S. H. 2006. Attended the Founding Conference for Expatriate Arab Scientist. Doha, Qatar. 24-26 April 2006.
- Daroub, S. H. 1999. Simulation of phosphorus in the DSSAT models. Presented at the Integrated Nutrient Management in Cropping Systems: Improved Capabilities in Modeling and Recommendations workshop. Organized by the Tropical Soil Biology and Fertility Programme, Kenya, Nairobi. October 4-7, 1999.
- Daroub, S. H. 1999. Effect of no-tillage and organic cropping systems on phosphorus fractions. Seminar presented at the American University of Beirut, Beirut, Lebanon, January 1999.
- Daroub, S. H. 1998. DSSAT Simulation models: theory and uses. Presentation to the National System of Agricultural Research, Campinas, Brazil. September 24, 1998.
- Daroub, S. H. 1998. Simulation of phosphorus in the soil-plant system. Presentation at EMBRAPA (Brazilian Agricultural Research Corporation), Campinas, Brazil. September 14, 1998.
- Daroub, S. H. 1997. Introduction of phosphorus simulation into the DSSAT models. Seminar presented at Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia, October 1997.

B. International – Contributed

- Daroub, S. H. 2006. Ten Years of Phosphorus Best Management Practices in the Everglades Agricultural Area. The 18th World Congress of Soil Science, Philadelphia, July 10-14, 2006. Poster

- Chen, M., S. H. Daroub, J. L. Pantoja, and V. Nadal. 2006. Impact of Land Use on an Organic Soil of the Everglades Agricultural Area. The 18th World Congress of Soil Science, Philadelphia, July 10-14, 2006. Poster
- Chen, M., S. H. Daroub, and V. Nadal. 2005. Comparison of two digestion methods for determining total phosphorus in farm canal water. The 9th International Symposium on Soil and Plant Analysis, Cancun, Mexico. poster
- Park D. M., J. L. Cisar, G. H. Snyder, J. E. Erickson, S. H. Daroub and K. E. Williams. Comparison of Actual and Predicted Water Budgets from Two Contrasting Residential Landscapes in South Florida. Proceedings of the 10th International Turfgrass Research Conference. July 10-15, 2005. Llandudno, Wales
- Chen, M., Ma, L. Q., Daroub, S. H., Cao, X., and Harris, W. G. 2002. Distribution and mobility of lead contamination in soils of Florida shooting ranges. The 18th Annual International Conference on Contaminated Soils, Sediments and Water, U of Massachusetts at Amherst, MA, October 21-24, 2002.
- Chen, M., Ma, L. Q., Daroub, S. H., Chirenje, T., and Harris, W. G. 2002. Natural and anthropogenic "background" levels of Arsenic in Florida's soils. The 18th Annual International Conference on Contaminated Soils, Sediments and Water. U of Massachusetts at Amherst, MA, October 21-24, 2002.

C. National – Invited

- Daroub, S. H., Gerakis, A., Ritchie, J. T., Friesen, D. K. 2000. Performance of a newly developed simulation model under semi-arid and tropical conditions. Invited poster, Joe Ritchie Crop Modeling Symposium, Soil Science Society of America meetings Minneapolis, MN. November 5-9, 2000.
- Daroub, S. H. 2000. Phosphorus simulation in the soil-plant system. Michigan State University, Double Tree Hotel, Detroit, MI. Homer Nowlin Chair Crop Modeling Symposium. November 10-11, 2000.

D. National – Contributed

- Arrieta, C., Busey, P. and Daroub, S.H. 2005. Soil compaction and goosegrass infestation in bermudagrass. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings in Salt Lake City, Nov. 6-10, 2005
- Daroub, S. H., Lang, T.A., and Diaz, O. A. 2005. Reducing particulate phosphorus transport from organic soils in south Florida. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings in Salt Lake City, Nov. 6-10, 2005
- Daroub, S H., Chen, M., Diaz, O. A., and Nadal, V. 2005. Soil variability in an organic soil of the Everglades Agricultural Area. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings in Salt Lake City, Nov. 6-10, 2005

- Chen, M, S. H. Daroub, T. A. Lang, and T. Aziz. 2004. Specific conductance in the Everglades Agricultural Area. First National Conference on Ecosystem Restoration, Orlando, FL. December 6-10, 2004. Poster.
- Diaz, O. A., S. H. Daroub, J.D. Stuck, and T. A. Lang. 2004. Transport of dissolved and particulate phosphorus in canal waters downstream of STA-1W. First National Conference on Ecosystem Restoration, Orlando, FL. December 6-10, 2004. Poster
- Daroub, S. H., M. Chen, and T. A. Lang. 2004. Factors influencing specific conductance in the Everglades Agricultural Area canals. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Seattle, WA. November 2004.
- Lang, T. A., S. H. Daroub, and O. A. Diaz. 2004. Managing drainage flow velocity and aquatic weeds to reduce P export from Everglades Agricultural Area farms. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Seattle, WA. November 2004. Poster
- Kabengi, N., Rhue, D., and Daroub, S. H. 2004. Mechanisms of Arsenate Sorption on Amorphous Aluminum Hydroxides: Interpretation of Calorimetric Effects. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Seattle, WA. November 2004. Poster
- Daroub, S. H., Stuck, J. D., Diaz, O. A., Clark, M. W., Reddy, K. R. 2003. Impact of water conservation area canals on low-phosphorus water discharged from storm water treatment areas.. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO.
- Chen, M. , Ma, L. Q., Daroub, S. H., Snyder, G. H., Cisar, J. L., Cai, Y. 2003. Use and fate of Arsenic herbicides in Florida golf courses. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO.
- Chen, M. , Lang, T. A., Daroub, S. H. 2003. Specific conductivity trends at monitoring sites in the Everglades Agricultural Area. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO. Poster
- Diaz, O. A., Daroub, S. H., Stuck, J. D., Lang, T. A. 2003. Transport mechanisms of dissolved and particulate phosphorus in the water conservation area canals in south Florida. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO. Poster
- Kabengi, N. J., Rhue, R. D., Daroub, S. H. 2003. Calorimetric determination of the PZC of amorphous aluminum hydroxides: 1. Method development. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO.
- Kabengi, N. J., Rhue, R. D., Daroub, S. H. 2003. Calorimetric determination of the PZC of amorphous aluminum hydroxides: 2. Applications. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO. Poster

- Lang, T. A., Daroub, Samira H., Diaz, O. A., Stuck, J. D., Izuno, F. T. 2003. Techniques to reduce particulate phosphorus loads from farms in the Everglades Agricultural Area. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Denver, CO.
- Daroub, S. H., Lang, T. A., Rice, R. W., and Izuno, F. T. 2002. Phosphorus load reduction under best management practices in the Everglades Agricultural Area. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Indianapolis, IN, November 10-14, 2002.
- Kabengi, N. J., Rhue, R. D., Daroub, S. H. 2002. Energetics of Arsenic (V) sorption on amorphous Aluminum hydroxides determined by flow calorimetry. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings, Indianapolis, IN, November 10-14, 2002.
- Bostick, W. M., Daroub, S. H., Ritchie, J. T., and Jones, J. W. 2002. A modular approach to modeling phosphorus in crop systems. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Indianapolis, IN, November 10-14, 2002.
- Chen, M., Daroub, S. H., and Gilbert, R. A. 2002. Beneficial use of steel slag and DWTR in reducing P leaching from histosol. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Indianapolis, IN, November 10-14, 2002.
- Morris, D. R., Glaz, B., and Daroub, S. H. 2002. Soil organic matter oxidation potential with fluctuating water table under sugarcane. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Abstracts, Indianapolis, IN, November 10-14, 2002.
- Daroub, S. H., Glaz, B., and Morris, D. R. 2001. Phosphorus availability to sugarcane in histosols under periodic flooding. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Charlotte, NC, October 21-25, 2001.
- Glaz, B., Morris, D. R., Reed, S., and Daroub, S. H. 2001. Sugarcane response to cyclic flooding and variable water-table depths. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Charlotte, NC, October 21-25, 2001.
- Chen, M., Gilbert, R., Daroub, S. H., and Glaz, B. 2001. Near infrared spectroscopy prediction of mineral concentration in sugarcane leaves. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual meetings Charlotte, NC, October 21-25, 2001.
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GRADUATE STUDENTS

Role	Student	Research Topic	Home Dept.	Date
Chair or co-chair, 3 Ph.D. Committees	Nadine Kabengi (D. Rhue, co-chair)	Measuring surface chemical properties using flow adsorption calorimetry: the case of amorphous aluminum hydroxides and Arsenic (V)	Soil and Water Science	2001- 2004 Graduated
	Dara Park (J. Cisar, co-chair)	Effect of Nitrogen fertilization and irrigation on St. Augustine grass quality, growth and N leaching.	Soil and Water Science	Aug. 2002- Present
	Jaya Das (G. O'Connor, co-chair)	Characteristics of sediment phosphorus in Everglades Agricultural Area canals	Soil and Water Science	Started Fall 2005
Chair, 4 Masters Committees	Rafe Padgett	Non-thesis	Soil and Water Science	2003 – present
	Claudia Arrieta (P. Busey, co-chair)	Effect of compaction on goosegrass growth in turfgrass	Soil and Water Science	2004- present
	Louis Philor	Non-thesis	Soil and Water Science	Jan. 2004
	Lalitha Janardhanan	Phosphorus adsorption characteristics of Everglades Agricultural Area organic soils	Soil and Water Science	Started Fall 2005
Member, 7 Masters Committees	Joaquin Jimenez	Nitrate and phosphate leaching under typical landscape systems in south Florida	Soil and Water Science	2003-present
	Henrique Mayer	Using in field quick sap testing meter kits to measure nitrate and potassium in plant tissue	Soil and Water Science	2005- present
	Amanda Abell		Soil and Water Science	2005- present
	Jennifer Leeds	Phosphorus flux in high nutrient soils receiving STA effluent	Soil and Water Science	2004 – 2005 Graduated
	Hou-Feng Li	Subterranean termites	Entomology Dept.	2004- 2006 Graduated
	Tom Higginbotham		Soil and Water Science	
	Kathleen Lockhart		Soil and Water Science	

CONTRACTS AND GRANTS

FUNDING PERIOD	Amount (\$)	Funding Agency / Title	Participation
10/1/2004 – 9/30/2005	250,000	EAA- Environmental Protection District (EPD) / Implementation and verification of best management practices to reduce P loading in the Everglades Agricultural Area	PI
8/1/2004 – 8/31/2008	113,949	US Department of Interior Fish and Wildlife Service / Impact of canal sediments on water quality	PI
1/1/2004 – 12/31/2004	275,000	EAA- Environmental Protection District (EPD) / Implementation and verification of best management practices to reduce P loading in the Everglades Agricultural Area	PI
8/2003-4/2004	153,000	EAA- Environmental Protection District (EPD) / Implementation and verification of best management practices to reduce P loading in the Everglades Agricultural Area	PI
1/1/2003 – 12/31/2003	375,000	EAA- Environmental Protection District (EPD) / Implementation and verification of best management practices to reduce P loading in the Everglades Agricultural Area	PI
2003- 2008	1,375,000 (\$43,350, my share)	USAID Soil Management CRSP/Assessing tradeoffs among soil management technologies: enhanced systems for use at farm and policy levels	Co-PI (one of six)
1/1/2002 – 12/31/2002	1,307,163 (\$875, 000 my share)	EAA-EPD / Implementation and verification of best management practices to reduce P loading in the Everglades Agricultural Area	PI
2001-2004	450,000	FDEP 319-h extension grant / Everglades agricultural area best management practices for reducing particulate phosphorus transport	PI
2001	15,000	Rice Council / Evaluating silicon soil test methods	Co-PI (one of two)