

## **SAMIRA H. DAROUB, PROFESSOR**

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### **EDUCATION**

- February 2014 Executive Leadership Certificate. Cornell University.
- December 1994 Ph.D. Michigan State University, East Lansing, MI. Crop and Soil Sciences Dept.; Soil Chemistry. Dissertation: The effect of tillage on phosphorus transformations in soils.
- February 1986 M.Sc. The American University of Beirut, Lebanon. Soil Sciences. Thesis: Urea Phosphate behavior in incubated and calcareous soil in relation to iron availability.
- September 1983 B.Sc. in Agriculture and a Diploma in Agricultural Engineering, The American University of Beirut, Lebanon.

### **PROFESSIONAL HISTORY**

- 2021- present Acting Center Director, June 2021- present; Associate Center Director, January- June 2021; Everglades Research & Education Center (**EREC**)
- 8/2020- present Distance Education Coordinator, Soil and Water Sciences Dept (**SWS**), UF
- 2012-2021 Professor, UF Institute of Food and Agricultural science (**IFAS**), **SWS** and **EREC**
- 2006 –2012 Associate Professor, UF/IFAS
- 2000-2006 Assistant Professor, UF/IFAS
- 1995- 2000 Research Associate, Department of Crop and Soil Sciences, Michigan State University
- 1985-1988 Instructor, Soil, Irrigation, and Mechanization Department, the American University of Beirut

### **MAJOR RESPONSIBILITIES AT THE UNIVERSITY OF FLORIDA**

Professor in the Soil and Water Sciences Department, Everglades Research and Education Center, Belle Glade, Florida; currently **50% Teaching, 35% Research and 15% Admin** responsibilities.

- Acting Center Director, EREC; responsible for smooth operation of the center with over 80 faculty and staff.
- Distance Education (DE) Coordinator, SWS. Advisor for newly admitted DE non thesis MS students. Performing curriculum review of the DE MS in Environmental Science program.
- Responsible for **teaching** courses in soil sciences, soil chemistry, and environmental nutrient management. Classes are part of the undergraduate (UF Online) and graduate Distance Education programs at the University of Florida.
- My key **research** objectives encompass environmental issues related to soil and water quality with research and extension focus on development and implementation of Best Management Practices to reduce phosphorus leaching in soils and transport into surface waters in the Everglades in south Florida. A second research focus is on the sustainability of organic soils and agriculture in the Everglades Agricultural Area. A third focus is on

international development focusing on building individual and institutional capacity in India and Middle East in soil health and water resources.

- I provide **outreach and extension** services to farmers in south Florida for profitable agriculture production and good environmental stewardship.

#### PROFESSIONAL DEVELOPMENT AND LEADERSHIP TRAINING / SERVICE

- 1) **Certificate** in multicultural mentoring, UF and the International Mentoring Association, July 2021.
- 2) Participant, UF Herbert Wertheim College of Engineering (HWCOE) Mini Mentor Academy, January 11-15, 2021 facilitated by the UF Office of Chief Diversity Officer
- 3) **LEAD21 graduate**, leadership development program for faculty, program and team leaders, department heads and chairs in land grant universities, colleges of agricultural, environmental, and human sciences, and NIFA. <http://lead-21.org/> 2017/2018
- 4) **LEAD IFAS graduate**, the LEAD IFAS program provides leadership training for IFAS faculty and staff who assumed or are interested in assuming management and leadership positions, 2014/2015
- 5) **Executive Leadership Certificate**. Cornell University. 2014. Took classes in coaching and developing others, managing strategic change, and tactics and skills for negotiating
- 6) **Board of Trustees Member**, Agronomic Science Foundation [a-s-f.org](http://a-s-f.org), 2020-2023, **Appointed**
- 7) **Committee Member**, US National Committee of Soil Science, National Academies of Sciences ([USNC/SS](http://USNC/SS)), 2020-2022, **Appointed**
- 8) **Board member** Soil Science Society of America (**SSSA**) 2018-2020. **Elected**
- 9) **Member**, SSSA Science Policy Committee 2020-2021; Participated in the 2020 Congressional Day Visit, Washington DC.
- 10) **Co-chair**, Representation and Recognition Task force, SSSA, 2020-present; **Member**, 2018-2019
- 11) **Co-established** the UF College of Agriculture and Life Sciences **CALS Mentoring Academy** with the support of Dean Turner. The academy is designed to improve skills and knowledge of faculty to improve their mentoring capabilities. The goal is to increase retention rates of PhD students, **offered annually since Fall 2019**; 51 CALS faculty finished the academy.
- 12) I offer online workshops on effective mentoring of graduate students with **UF Center of Teaching of Excellence (CTE)**, *offered 3 workshops since 2020*
- 13) Chair, SWS Distance Education ad hoc committee, 2018-present. The committee is overseeing a curriculum review for the Distance Education MS Environmental Science program and certificates offered in the Department. The review entails a survey for stakeholders from industry, state agencies, government and non-government agencies.
- 14) Served on **UF IFAS Tenure and Promotion** committee for three years, 2014, 2016-2017
- 15) Supervised 10 Post-doctoral Fellows and Research Associates, 2 chemists, many graduate students, and local and international interns/ undergraduate students in my lab.
- 16) Served on Mentoring committees for 3 Assistant and Associate professors in the Horticulture, Soil and Water Sciences and Entomology and Nematology.
- 17) Served on Tenure and Promotion committee EREC 2016 and the Soil and Water Sciences tenure and promotion committee in 2016 & 2019.
- 18) Chair, Professional Development Committee (PDL) and faculty enhancement Opportunities (FEO) 2020 and member in 2021, UF IFAS.

## AWARDS AND HONORS

- **Fellow**, Soil Science Society of America, 2021
- **Presidential Award**, Soil Science Society of America for members of the Representation and Recognition Taskforce for gender and diversity issues. 2021
- **Fellow**, American Society of Agronomy, 2020
- **Term Professor Award** University of Florida (UF), 2017-2019
- **Teacher Fellow Award**, North American Colleges and Teachers of Agriculture (NACTA), 2012.
- **High Impact Research Paper Award**, 5<sup>th</sup> Annual UF/IFAS Research Awards, Gainesville, 2012.
- **Academy of Teaching Excellence**, UF College of Agriculture and Life Sciences (**CALS**), 2008
- **Graduate Teacher of the Year**, UF College of Ag and Life Sciences, 2007/2008.
- Awarded a **Full scholarship for PHD program** from the Hariri Foundation, a non-profit organization, 1989.
- **SWS Best Dissertation Award for PhD student**, Claire Friedrichsen, 2019. UF, SWSD
- **UF IFAS Best Thesis Award for MS student** Susanna Gomez, 2013. UF Institute of Food and Agricultural Science
- **SWS Dept. Best Dissertation Award for PhD student**, Nadine Kabengi, 2005. UF, SWSD

## RESEARCH IMPACTS

- Secured over \$3.8 million in funding from state and federal sources for research and extension in the last 10 years.
- Dr. Daroub mentored 10 postdoctoral research associates, 10 PhD students, 16 MS students and served on a total of 64 graduate committees. Her PhD students and postdocs have various careers in academia, state government and industry.
- Mentored 12 interns, visiting scholars and Borlaug fellows from USA, Brazil, Honduras, Costa Rica, India and Iraq. The scholars were trained for laboratory and research techniques.
- **Best Management Practices (BMP) program in the Everglades Agricultural Area (EAA):** Developed a highly successful research and extension BMP program in the EAA. The BMP research projects, and active extension program have led to consistent improvements in water quality out of the EAA and has been instrumental in keeping growers in the area in compliance with state regulation imposed on them per the Everglades Forever Act of 1994. The requirement mandated by the 1994 Everglades Forever Act is a 25-percent phosphorus reduction from the EAA basin. Implementation of BMPs produced over 50-percent phosphorus average reduction in the 470,000-acre EAA farming region south of Lake Okeechobee over the last 25 years (Source: SFWMD) and is the direct achievement of the BMP research and extension program and growers collaboration.
- Gave invited talks at the National Academy of Science about the “Science of Source Control” and BMPs and at the public meeting on the long-term plan for achieving water quality goals for the Everglades Protection Area Tributary basin.
- Collaborative research on **sustainable farming and soil health** (with USDA-ARS and other faculty) has led to management practices that farmers have adopted including summer flooding of fallow soils, flooded rice, use of flood tolerant sugarcane cultivars that can thrive on high water tables, and application of amendments.
- New research led by graduate student Friedrichsen is innovative in the new sub discipline of

Ethnopedology combining soil and social sciences in the use of mental models to **improve extension communications for soil health and food security.**

- Collaborative research with microbiology faculty (Triplett) and student (Zhalnina,) has led to new insights on **microbiomes in the organic soils** in the EAA with several published papers. A paper on soil microbial diversity by pyrosequencing was published in ISME in 2007 and has attracted great national and international interest. Zhalnina described bacterial and archaeal diversity in soils in the EAA.

#### **EXTENSION IMPACTS**

- I have steadily worked with groups who have conflicting interests with farmers in the EAA in south Florida in my role as a university scientist seeking to enhance sustainable farming practices and improve water quality. I have won the trust and confidence of growers and regulators. This trust, in conjunction with technical accomplishments, have led to the success of the Best Management Practices program (BMP) in tremendously improving water quality discharged from the EAA watershed. The BMP program reached a 25-year milestone with a higher than 50 % average reduction in phosphorus loads from the EAA.
- Over 50 Best Management Practices (BMP) workshops trainings in the Everglades Agricultural Area (EAA) in south Florida have been conducted since 2002 with the help of postdoctoral fellows, students, extension personnel, EAA growers, and USDA ARS scientists. These workshops are critical in keeping growers in continued compliance with their BMP permit issued by the water management district in support of Everglades restoration. We reach over 250 growers, USDA, Water management district personnel yearly. Trainings are done in English and Spanish.
- In response to Covid-19 restrictions, two online classes (English and Spanish) for BMP training have been established on Canvas extension with educational CEUs offered.
- Over 26 soil texture lecture and demonstration during a whole week Fumigation School at Ft. Lauderdale REC
- Published 15 extension publications on various soil and water management practices to be used by extension agents, water management personnel and farmers.
- Participated in multiple open house and field days to showcase sustainable agricultural production and environmental stewardship in south Florida.
- My Extension publications can be found at <https://edis.ifas.ufl.edu/>

#### **INTERNATIONAL PROGRAM**

My international program spans research and educational projects in Latin America, India and the Middle East. My focus through these projects is on education, capacity building and overall improvement of livelihood of people in developing countries. Through visits, invited talks, workshops and conferences in India and the Middle East and hosting scientists and graduate students from different countries, my perspective on international issues of poverty, water scarcity and quality, and soil degradation has been broadened tremendously.

- **Improving extension communications for soil health and food security:** This project investigated how stakeholders in India and south Florida perceive soil management as part of the food system and their perception of how soil health relates to their own food security. Graduate student Claire Friedrichsen researched communities in India participating in

community development programs related to wastewater treatment, soil health and food security (2015-2019)

- **Mentored 12** visiting undergraduate students and scholars from USA, Brazil, Honduras, Costa Rica, India and Iraq who worked and trained in my laboratory. I hosted four Borlaug fellows twice from Iraq in summer 2009 and 2012 for 12 weeks training funded by a Federal grant from United States Dept of Agriculture- Foreign Agriculture Service (USDA-FAS).
- Represented the US National Soil Science committee (USNC) (with Alfred Hartemink University of Wisconsin, Madison, USNC Chair) on the International Soil Science InterCongress organized by International Union of Soil Science (IUSS), November 18-20, 2020 (virtual). The meeting discussed IUSS business and world congress of soils in Glasgow in 2022
- **Collaborator with InnovATE – Jordan** 2013-2014: (Collaborator with UF International Center team). The mission of the Innovation for Agricultural Training and Education (innovATE) Project is to develop the human and institutional capacity necessary for developing countries to promote rural innovation needed to achieve sustainable food security, reduce poverty, conserve natural resources and address other rural problems. The team evaluated the extension and education system in Jordan.
- **Co-organized** with UFIC an international workshop titled “The Middle East Water and Livelihood Initiative Educators’ workshop” conducted June 28-30, 2010 at the American University of Cairo in Egypt.
- **Presented** at the workshop for Iraqi Borlaug fellows and mentors. Organized by USDA-Foreign Agriculture Service, ICARDA (*International Center for Agricultural Research in the Arid Areas*), Aleppo, Syria. May 23-26, 2010.
- **Collaborator** with UFIC in the **Water and Livelihood Initiative (WLI) in Middle East (2009-2013)**: The goal of the WLI is to improve the livelihoods of rural households and communities in areas where water scarcity, land degradation, water quality deterioration, food security and health problems are prevalent in the seven participating countries (Egypt, Syria, Lebanon, Jordan, Palestine, Iraq and Yemen), focusing initially on specific benchmark sites. This project was directed by ICARDA (International Center for Research in the Dry Areas) and funded by USAID (US Agency for International Development). US universities (U of Florida, U of California, Davis, U of California, Riverside, Texas A&M, Utah State U, and U of Illinois) and several Middle Eastern Universities participated. I was involved in training faculty and scientists at Middle Eastern universities in e-technologies and distance education to build human and institutional capacity in Water Sciences.
- **Collaborator** in an education and extension project in India through the **India US AKI (Agricultural Knowledge Initiative)** to build capacity in water science education in 2007. The project conducted a weeklong workshop at ICRISAT followed by several selected participants visiting UF SWSD for training on distance education.
- **Chaired** two sessions and presented at the “Indo-US Workshop on Innovative E-technologies for Distance Education” organized by UF and ICRISAT (International Center for Research in the Semi-Arid Tropics, India, 2007).
- **External Reviewer for tenure and promotion packets:** King Abdul Aziz University (2020) and Hashemite University, Jordan (2014)
- **Reviewer** for Ewel postdoctoral applications, UF International Center, January 2020, reviewed 20 proposals

## TEACHING EXPERIENCE

- I am a Leader in development of web- based classes and innovative on-line educational materials. I use multiple venues to ensure a fulfilling learning experience and smooth delivery of classes. Venues include synchronous chat sessions, class websites, live recorded lectures, narrated lectures, guest lecturers, videos, and bulletin boards for discussion and interactions with students.
- My teaching load has included two undergraduate and three graduate classes in Distance Education mode and one laboratory class: SWS 3022 (Introduction to Soils in the Environment) and 4116 (Environmental Nutrient Management) are offered part of the UF Online Undergraduate program in Environmental Management <https://ufonline.ufl.edu/> ; Graduate classes SWS 5050 (Soils for Environmental Professionals), SWS 5115 (Environmental Nutrient Mgt.- till Fall 2020) and 5406 (Soil and Water Chemistry- till Fall 2017) are offered online as part of the SWSD Distance education MS program <http://soils.ifas.ufl.edu/sws-online/>. All classes have websites on Canvas designed to meet the *UF Online Markers of Excellence* <http://distance.ufl.edu/quality-assurance-for-online-courses/>

## TEACHING ACTIVITIES AND SERVICE

- UF Soil and Water Sciences Department Academic Programs Committee, 2014-2016; 2019-2021
- Attended the 2012 NACTA (North America Colleges and Teachers of Agriculture) Annual meeting, River Falls, WI, June 2012.
- Presented at the Annual CALS Teaching Enhancement Symposium of the College of Agriculture and Life Sciences, the University of Florida Hotel and Conference Center, 2011,2013, 2019
- **Served** on the review committee for UF/CALS Teaching Enhancement mini-grants, 2011
- **Co-organized** an international workshop titled “The Middle East Water and Livelihood Initiative Educators’ workshop” conducted June 28-30, 2010 at the American University of Cairo in Egypt.
- **Served** on the review committee for UF/CALS Roche Professorships, 2010
- **Presented** at the workshop for Iraqi Borlaug fellows and mentors. Organized by USDA-Foreign Agriculture Service, ICARDA (*International Center for Agricultural Research in the Arid Areas*), Aleppo, Syria. May 23-26, 2010.
- **Served** on a National committee for Curriculum Review of the Department of Soil and Crop Sciences at Texas A & M in 2009.
- **Served** on the review committee for CALS Graduate Teacher of the Year awards, 2008 and 2010.
- **Chaired** two sessions and presented at the “Indo-US Workshop on Innovative E-technologies for Distance Education” organized by UF and ICRISAT (International Center for Research in the Semi-Arid Tropics, India, 2007.

## PROFESSIONAL SOCIETIES

- 1) The American Society of Agronomy (ASA)
- 2) The Soil Science Society of America (SSSA).
- 3) The International Soil Science Society (IUSS).
- 4) North America Colleges and Teachers of Agriculture (NACTA)
- 5) International Mentoring Association (IMA)
- 6) The Alpha Alpha chapter of Phi Beta Delta, an Honor Society for International Scholars

## NATIONAL AND INTERNATIONAL COMMITTEES

- **Member**, the National committee of Soil Sciences with the National Academies of Sciences, representing the US in the International Union of Soil Science. **Appointed**
- **Board member**, Agronomic Science Foundation, 2020- **Appointed**
- **Board member** Soil Science Society of America (SSSA) 2018-2020. **Elected**
- **Member**, SSSA Science Policy Committee
- **Member**, Representation and Recognition Task force, SSSA, 2018-2020
- **Co-chair**, Representation and Recognition Task force, SSSA, 2021-present
- **Member**, Clark Soil Biology Graduate Student Scholarship Committee, SSSA, 2018
- **Member**, Soil Science Society of America Rapid Response Team, 2015-2018
- **Nomination committee for soil chemistry division officers. SSSA, 2014-2016**
- Past chair, Women In Science, 2016
- **Chair**, Women in *Agronomy, Soils, Crops and Environmental Science Committee* (renamed Women In Science), American Society of Agronomy, Crop Soil Science Society, and Soil Science Society of America, 2015
- **Soil Chemistry Division Past Chair (2015); Chair (2014); Chair Elect (2013)**, Soil Science Society of America (SSSA)
- **Chair, Soil Chemistry Division (2014)** for President Elect Committee Board (SSSA), Nomination Committee for Soil Chemistry Division Officers (SSSA), 2014-2016) Nomination Committee for Fundamental Soil Science Group to the Board (SSSA)
- **Member (2014)** Program Planning Committee (SSSA)
- **Member** of the “William H. Patrick Memorial Lectureship Committee” (711.14), Soil Science Society of America, 2010-2013
- **Member, Lloyd R. Fredrick** Soil teaching travel study award committee, SSSA, 2012-2013
- **Member (2010-11) and Chair (2012)** of the “Training & Continuing Education for Soil Scientists Committee” (S587), Soil Science Society of America 2010- 2012

## PROFESSIONAL ACTIVITIES AND SERVICE (SINCE 2010)

- **Reviewer, NSF** Faculty Early Career (CAREER) Development Program, Geobiology and Low-Temperature Geochemistry Program; reviewed two proposals (2021 and 2020)
- **External Reviewer** Texas A&M, Soil and Crop Sciences Dept. Tenure and Promotion packet, 2021
- **External Reviewer**, University of California, Davis Promotion packet in the Department of Air, water, and Land resources, 2019
- **External Reviewer**, University of Delaware, Tenure and Promotion packet for Professor Promotion in the Department of Plant and Soil Sciences, 2018
- **Reviewer**, Clark Soil Biology Graduate Student Scholarships, SSSA, 2018 & 2019
- **Reviewer**, 2018/2019 Research Abroad for Doctoral Students Program, University of Florida International Center (reviewed 15 proposals), 2018.
- **Reviewer**, The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) New Directions Research Program (one proposal), 2018
- **Associate Editor**, Soil Chemistry Division, Soil Science Society of America Journal (SSSAJ) Editorial Board, 1/2013- 12/2018.

- Served on the USDA/NIFA Agriculture & Food Research Initiative (AFRI)/ Bioenergy, Natural Resources, and Environment (BNRE) Foundational Program: Nutrient Cycles, Management of Environmental Concern, **USDA-NIFA**, September 26-29, 2017
- Served on the Bioenergy, Natural Resources, and Environment (BNRE) Foundational Program: Nitrogen and Phosphorus Cycling (A1401) priority panel, **USDA-NIFA**, March 2 – 4, 2016
- **Workshop Organizer**, Women in Science: Breaking the Bias Habit; Women in Agronomy, Soils, Crops and Environmental Science Committee for the 2015 International SSSA, CSA, ASA meetings in Minneapolis, MN. 2015
- **Organizer, Soil Chemistry graduate student mentoring program** for the 2015 International SSSA, CSA, ASA meetings in Minneapolis, MN. 2015
- **External Reviewer**, Rutgers University extension faculty promotion with tenure packet, September 2015
- **External reviewer-** Canada Excellence Research Chairs- reviewed the quality of the institutional recruitment process. 2015
- **Panel Reviewer** - USDA/National Institute of Food and Agriculture (NIFA) Renewable Energy, Natural Resources and Environment (RENRE) program (Reviewed 15 proposals). Washington DC, September 16-18, 2014,
- **Panel member, UF/IFAS** Tenure and Promotion Committee, 2014 and 2016-2017
- **Co-organized and co-chaired** a Special Session on Climate Change during the 2014 International ASA, SSSA, and CSA meetings, Long Beach, Ca. 2014
- **External Reviewer:** Hashemite University, Jordan faculty promotion with tenure packet, September 2014
- **Panel Reviewer** - USDA/National Institute of Food and Agriculture (NIFA) Renewable Energy, Natural Resources and Environment (RENRE) program (Reviewed 15 proposals). June 3-7, 2013, Washington DC.
- **Reviewer:** NSF National Science Foundation - Division of Earth Sciences. *Hydrologic Sciences Competition* – (Reviewed two proposals) *October 2013*
- **Reviewer** for California Department of Food and Agriculture (CDFA), Fertilizer Research and Education Program (FREP) in 2011.
- **Organized and chaired** a session at Joint Conference of the 9<sup>TH</sup> INTECOL International Wetlands Conference, The Society of Wetland Scientists (SWS) Annual Conference and the Greater Everglades Ecosystem Restoration (GEER) Conference, June 3-8, 2012, Orlando, FL, USA
- **Co-organized** a symposium on “Reclaimed Water” during the joint meeting of the Florida State Horticultural Society and the Soil and Crop Science Society June, 2010.

## **PUBLICATIONS**

### **CHAPTERS IN BOOKS**

- 1) Daroub, S.H. and C. Friedrichsen. 2018. Chemical composition of soils: role in soil health. *In: Managing soil health for sustainable agriculture Volume 1: Fundamentals* (Burleigh Dodds Series in Agricultural Science), Don Reicosky (Editor).
- 2) Baerenklau, K. and T. P. Tomich. *Contributing Authors: S. Daroub et al.* 2016. Responses: Policies and Institutions. *In: California Nitrogen Assessment, Challenges and Solutions for*



People, Agriculture, and the Environment. Agriculture Sustainability Institute at UC Davis, California. Thomas P. Tomich, Sonja B. Brodt, Randy A. Ahlgren, and Kate M. Scow (Editors), University of California Press

- 3) Daroub, S. H., and Snyder, G. H. 2005. The chemistry of plant nutrients in soil. *In*: L. E. Datnoff (Ed.) Mineral Nutrition and Plant Disease. American Phytopathological Society. 12 pp.
- 4) Daroub, S. H., and Snyder, G. H. 2001. Soils of south Florida. *In*: Florida Earth Journal. S. Bronson (ed), University of Florida, IFAS, Gainesville.

### **REFEREED JOURNALS**

*g= graduate student; u= undergraduate student p= postdoctoral researcher*

- 1) Rodriguez, A. F.<sup>g</sup>, Gerber, S., Inglett, P. W., Tran, N. T., Long, J. R., & Daroub, S. H. (2021). Soil carbon characterization in a subtropical drained peatland. *Geoderma*, 382, 114758.
- 2) Huang, L.<sup>p</sup>, Chakrabarti, S., Cooper, J., Perez, A., John, S. M., Daroub, S. H., & Martens-Habbena, W. (2021). Ammonia-oxidizing archaea are integral to nitrogen cycling in a highly fertile agricultural soil. *ISME Communications*, 1(1), 1-12.
- 3) Rodriguez, A. F.<sup>g</sup>, Daroub, S. H., Gerber, S., Jennewein, S. P., & Singh, M. P. (2021). Water management effect on soil oxidation, greenhouse gas emissions, and nitrogen leaching in drained peat soils. *Soil Science Society of America Journal*.
- 4) Santos, A. D. C.<sup>g</sup>, McCray, J. M., Daroub, S. H., Rowland, D. L., Ji, S., & Sandhu, H. (2020). Nitrogen Assessment of Shallow Florida Histosols. *Communications in Soil Science and Plant Analysis*, 51(14), 1916-1929.
- 5) Rodriguez, A. F.<sup>g</sup>, Gerber, S., & Daroub, S. H. (2020). Modeling soil subsidence in a subtropical drained peatland. The case of the Everglades Agricultural Area. *Ecological Modelling*, 415, 108859.
- 6) Jennewein, S. P.<sup>g</sup>, Bhadha, J. H., Lang, T. A., McCray, J. M., Singh, M. P., Cooper, J., & Daroub, S. (2020). Impacts of flooding, nitrogen-fertilization, and soil-depth on sugarcane nutrients grown on Histosols. *Journal of Plant Nutrition*, 43(3), 429-443.
- 7) Friedrichsen, C. N.<sup>g</sup>, Monroe, M. C., Daroub, S. H., Stepp, J. R., & Wani, S. P. (2020). Impact of mental models on constructed wetland maintenance in semi-arid India. *Water Practice and Technology*, 15(4), 1144-1157.
- 8) Friedrichsen, C. N.<sup>g</sup>, Monroe, M., Daroub, S. H., & Wani, S. P. (2020). Yuck! Plural valuation of constructed wetlands maintenance for decentralized wastewater treatment in rural India. *Frontiers in Sustainable Food Systems*, 4, 282.
- 9) Orsini, J.<sup>g</sup>, Daroub, S., McAuslane, H., & Stedman, N. (2019). Graduate Student and Faculty Perceptions of Mentoring Competency. *NACTA Journal*, 64(2), 66-78.
- 10) Cooper, J.A.<sup>p</sup>, R.H. Cherry, and S.H. Daroub. 2019. Attraction of the Corn Wireworm, *Melanotus communis*, (Coleoptera: Elateridae) to Carbon Dioxide. *Journal of Agriculture and Urban Entomology* 35(1), 30-35.
- 11) Friedrichsen, C.N.<sup>g</sup>, S. S.H. Daroub, M.C. Monroe, J.R. Stepp, and S. Gerber. 2019. Mental models of soil management for food security in the Everglades. *Geoderma* 343:166-175.

- 12) Tootoonchi, M.<sup>§</sup>, Bhadha, J.H., Lang, T.A, McCray J.M, Clark M.W. and Daroub, S.H. 2018. Reducing drainage water phosphorus concentration with rice cultivation in South Florida. *Agriculture Water Management* 205:30-37.
- 13) Alvarez-Campos, O.<sup>§</sup>, TA Lang, JH Bhadha, JM McCray, B Glaz, SH Daroub. 2018. Biochar and mill ash improve yields of sugarcane on a sand soil in Florida. *Agriculture, Ecosystems & Environment* 253, 122-130
- 14) Friedrichsen, C.N.<sup>§</sup>, S.H. Daroub, M.C. Monroe, J.R. Stepp, and S.P. Wani. 2018. Mental models of soil management for food security in peri-urban India. *Urban Agric. Reg. Food Syst.* Vol. 3 (2018):170002.
- 15) Orndorff-Gomez, S. <sup>§</sup>, Lang, T., Bhadha, J.H<sup>p</sup>, McCray, M. and Daroub, S.H. 2018. Sugarcane by-products used as soil amendments on a sandy soil: effects on sugarcane crop nutrition and yield. *Journal of plant nutrition*, Vol 14 (7)
- 16) Bhadha, JH<sup>p</sup>, A Sexton <sup>§</sup>, TA Lang, SH Daroub. 2017. Capturing Flow-weighted Water and Suspended Particulates from Agricultural Canals During Drainage Events. *Journal of visualized experiments: JoVE* (129) DOI: [10.3791/56088](https://doi.org/10.3791/56088)
- 17) Bhadha, J.H.<sup>p</sup>, TA Lang, SH Daroub. 2017. Influence of suspended particulates on phosphorus loading exported from farm drainage during a storm event in the Everglades Agricultural Area. *Journal of Soils and Sediments* 17 (1), 240-252
- 18) Bhadha, J.H.<sup>p</sup>, Alvarez-Campos, O. <sup>§</sup>, Lang, T.A., and Daroub, S.H. 2016. Growth Efficacy of Sorghum and Rice Amended with Dried Versus Composted Aquatic Vegetation. *Sustainable Agriculture Research* 5(2) 92-102
- 19) Larsen, N.<sup>§</sup>, K. Moore, T. Broschat, S. Daroub, and A. Wilkie. 2016. Nutrient leaching from bananas grown in sphagnum peat and sugarcane filter press mud based growing media during acclimation. *Proc. Fla. State Hort. Soc.* 129:257-262
- 20) Bhadha, J.H.<sup>p</sup>, Lang, T.A.<sup>p</sup>, Gomez, S <sup>§</sup>., Giurcanu, M. and Daroub, S.H,. 2015. Effect of water lettuce and filamentous algae on phosphorus loads in farm canals in the Everglades Agricultural Area. *Journal of Aquatic Plant Management, Journal of Aquatic Plant Management.* 53: 44-53.
- 21) Cherry, R.; Tootoonchi, M. <sup>§</sup>; Bhadha, J. <sup>p</sup>; Lang, Timothy, Karounos, M., and Daroub, S. H. 2015. Effect of Flood Depth on Rice Water Weevil (Coleoptera: Curculionidae) Populations in Florida Rice Fields. *Journal of Entomological Science.* Volume: 50 Issue: 4 Pages: 311-317.
- 22) Zhalnina, K. V <sup>§</sup>.; Raquel Dias; Michael T. Leonard; Patricia Dorr de Quadros; Flavio A.O. Camargo; Jennifer C. Drew; William G. Farmerie; Samira H. Daroub; Eric W. Triplett. 2014. Candidatus Nitrososphaera evergladensis genome shows enhanced adaptive ability of ammonia-oxidizing archaea to survive in soil. *PLOS ONE*.
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- 61) Ryan, J., Hamze, M., Harik, S. N., and Darub, S. 1988. Influence of urea phosphate on iron-inefficient soybeans. *Journal of Fertilizer Issues*. 5:56-60. *Note: S. H. Daroub and S. Darub is the same author*
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#### **BOOK REVIEWS**

Daroub, S. H. 2009. Achieving restoration of the Florida Everglades. Review of the book “The Everglades experiments: lessons for ecosystem restoration, Richardson, C. (ed). 2009) *Book Reviews. Ecology: Vol. 90, No. 2, pp. 572-577. doi: 10.1890/BR09-08.1*

#### **RESEARCH REPORTS (RECENT)**

- 1) Daroub, S.H., Rodriguez, A., Tootonchi, M. 2020. Water Quality Trends in the West Palm Beach-C51 Canal Impacting Lake Work Lagoon. Submitted to West Palm Beach County, November 2020
- 2) Daroub, S.H., Lang, T.A., Cooper, J., Rodriguez, A. Sexton, A. 2019. Implementation and Verification of BMPs in the EAA: Floating Aquatic Vegetation Impact on Farm P Load. Belle Glade, Fl. Final Report submitted to EAA-EPD and SFWMD, 240pp. Submitted March 2019 and accepted August 2019.

## RECENT PROCEEDINGS AND ABSTRACTS OF CONFERENCES

### SYMPOSIUMS/ WORKSHOPS:

- 1) Public Workshop for the Everglades Agricultural Area's (EAA) landowners' application to renew the Master Permit to meet requirements to implement a comprehensive program of research, testing and implementation of Best Management Practices ([online](#)). 2020. I presented the 5-year Scope of Work for the master BMP permit. Workshop organized by the South Florida Water Management District (SFWMD); July 2020
- 2) Co- Organizer: Workshop on "Graduate students' peer mentoring". Annual Teaching Enhancement Symposium UF CALS 2019
- 3) Organized a workshop titled "Breaking the Bias Habit" facilitated by Jennifer Sheridan from the University of Wisconsin., Women in Science and Engineering Leadership Institute. The workshop was part of the Women in Agronomy, Crops, Soils, and Environmental Science committee program at the ASA, CSSA, and SSSA International Annual Meeting Minneapolis, MN, November 15-18, 2015. **130 attendees**
- 4) Co-organized a workshop: Climate Change Impacts on Soil Carbon: Understanding and Estimating the Extent and Rates of Reactions, Processes, Interactions and Feedbacks. **Nik Qafoku**, Pacific Northwest National Laboratory; **Samira Daroub**, University of Florida. ASA, CSSA, and SSSA International Annual Meetings, Long Beach, CA, November 2-5, 2014

### INVITED PRESENTATIONS (NATIONAL AND INTERNATIONAL) SELECTED SINCE 2010

- 1) **Invited panel member:** *Worlds Soils Day Celebration: Diversity and Inclusion in Soil Science* December 5, 2020. Organizer: The National Academies of Science, Engineering, and Medicine's U.S. National Committee for Soil Sciences, in collaboration with the Soil Science Society of America <https://www.nationalacademies.org/event/12-04-2020/a-diverse-soil-science-future>
- 2) **Invited panel member** *Townhall - How Are We Doing and What Comes Next? Results from the ADVANCEGeo Survey of Work Experiences Across Earth and Space Sciences.* Represented *the Soil Science Society of America.* American Geophysical Union Virtual meeting, December 2020
- 3) **Invited panel member/ webinar:** *Diversity, Equity, and Inclusion in the Soil Science Society of America (SSSA), Organized by SSSA, July 2020* <https://www.youtube.com/watch?v=z0IAL6xoU30>
- 4) Daroub, S.H. 2019. Online learning at the University of Florida, Opportunities and Challenges. *Invited seminar presented* at the American University of Beirut, Lebanon, May 28, 2019.
- 5) Daroub, S.H. 2019. Success of the Best Management Practices Program in the Everglades Agricultural Area. SW Florida REC Discussion of Local Agricultural Issues with Legislators. Immokalee, FL, Dec 16, 2019.
- 6) Daroub, S.H. 2018. Success of the Best Management Practices Program in the Everglades Agricultural Area in Florida: Lessons learned. *Invited seminar presentation.* Clemson University, April 13, 2018.
- 7) Daroub, Samira H. and Timothy A. Lang. 2016. Canal sediment characteristics in the Everglades Agricultural Area and potential for P mitigation. *Universities Council on Water Resources/ the National Institutes for Water Resources (UCOWR/NIWR), Pensacola Beach FL, June 21-23, 2016.*

- 8) Daroub, Samira H. and Timothy A. Lang. 2016. Research and Demonstration Projects for Source Control Effectiveness in the EAA. *American Water Resources Association, Orlando, Florida, Nov 13-17, 2016.*
- 9) Qafoku, N. and Daroub, S.H. 2014. Climate Change Effects on Soils: Soil Carbon and Elemental Cycling. *ASA, CSSA, and SSSA International Annual Meetings, Long Beach, CA November, 2-5, 2014.*
- 10) Daroub, S.H. 2014. EAA BMP Research: "Role of Aquatic Vegetation on Water Quality and Sediments". *Invited presentation at the South Florida Water Management District Long Term Planning Meeting. West Palm Beach, FL 2014.*
- 11) Daroub, S.H. 2013. **Keynote Speaker.** "On Being a Mentor: Enhancing proactive capacity of students". Women in Agronomy, Crops, Soils, and Environmental Sciences Luncheon - a Special Program Of The WACSES Committee (ACS526). *ASA, CSSA, and SSSA International Annual Meetings, Tampa, FL Nov. 3-6, 2013.*
- 12) Daroub, S.H., Lang, T.A., Bhadha, J. 2013. Success of Agricultural Best Management Practices in Reducing Phosphorus Loads to the Everglades. *ASA, CSSA, and SSSA International Annual Meetings. Tampa, FL Nov. 3-6, 2013.*
- 13) Daroub, S.H., 2011. The importance of technology transfer and extension in enhancing food security. Regional Conference-Food security in the Middle East and North Africa- role of academic and research institutions, *American University of Beirut, Lebanon, 2-3 June 2011.*
- 14) Daroub, S.H, Lang, T.A, Boughton, E., Swain, H., Bohlen, P., Shukla, S., and Morgan, K. 2011. The State of the Science of Source Control. *23<sup>rd</sup> meeting of the National Academies, Committee on Independent Scientific Review of Everglades Restoration Project, West Palm Beach, Fl, May 16-18, 2011.*
- 15) Daroub, S.H. 2010. Overview of distance education. The Middle East Water and Livelihood Initiative Educators' workshop. *American University of Cairo, Cairo, Egypt. June 28-30, 2010.*
- 16) Daroub, S.H., and Kaluarachchi, J. 2010. Distance education programs in the US. The Middle East Water and Livelihood Initiative Educators' workshop. *American University of Cairo, Cairo, Egypt. June 28-30, 2010.*
- 17) Daroub, S.H., 2010. Overview of soil and water science programs at University of Florida. Workshop for Iraqi Borlaug fellows and mentors. *Organized by USDA-Foreign Agriculture Service, ICARDA, Aleppo, Syria. 23-26 May 2010.*

#### **CONTRIBUTED PRESENTATIONS (NATIONAL AND INTERNATIONAL) LAST FIVE YEARS**

- 1) Daroub, S.H., Orsini, J, and H. McAuslane. 2020. Effective Mentoring of Graduate Students. Agronomy Society of America, Crop Science Society of America and Soil Science Society of America Annual (ASA-CSSA-SSSA) International Virtual Meeting, Nov 9-13, 2020 (Abstract/ oral presentation)
- 2) Rodriguez, A.F.<sup>§</sup>, Daroub, S.H, Mohsen Tootoonchi, Maryory Orton. 2020. Water Quality Trends in Drainage Flowing into Lake Worth Lagoon in Southeast Florida, ASA-CSSA-SSSA International Virtual Meeting, Nov 9-13, 2020 (Abstract/ poster).
- 3) Saroop Sandhu<sup>§</sup>, Zachary T Brym, Dennis Calvin Odero, James Mabry McCray, Samira H. Daroub and Hardev Singh Sandhu, Identification of Industrial Hemp (*Cannabis sativa*) Varieties for Muck Soils of Florida ASA-CSSA-SSSA International Virtual Meeting (Abstract/ poster).
- 4) Tootoonchi, Mohsen<sup>§</sup>, Ronald cherry, Jehangir Bhadha, Timothy Lang and Samira H. Daroub, Abstract Effect of Shallow Flooding and Midseason Drainage on Rice Yield and Rice Water

Weevil (*Coleoptera: Curculionidae*) Infestation ASA-CSSA-SSSA International Virtual Meeting (Abstract/poster).

- 5) Orton Maryory<sup>g</sup>, Jennifer Cooper, and Samira Daroub Phosphate Removal from Canal Water in the Everglades Agricultural Area Using Activated Aluminum Oxide. Annual (ASA-CSSA-SSSA) International Virtual Meeting, Nov 9-13, 2020 (Abstract/ poster)
- 6) Berger Rachelle<sup>g</sup>, Samira Daroub. Effects of Flooded Rice Production As a Summer Crop Rotation in the Everglades Agricultural Area, University of Florida-Soil & Water Sciences, Belle Glade, FL, ASA-CSSA-SSSA International Virtual Meeting, Nov 9-13, 2020 (Abstract/ poster).
- 7) Orsini, J.<sup>g</sup> and Daroub S.H. 2019. Improving Outcomes of Mentoring Needs Assessments in Higher Education (Oral/ Abstract) 2019 International Mentoring Association (IMA) Annual conference, UF Hilton, March 11-12, 2019 <http://mentoringassociation.org/conference.htm> oral presentation
- 8) Rodriguez, A.F.<sup>g</sup>, Daroub, S.H, and S. Gerber. 2019. Carbon Oxidation, Characterization, and Soil Subsidence Modeling in the Organic Soils of the Everglades Agricultural Area, Florida. *Soil Science Society of America (SSSA) International Meetings, San Diego, CA, Jan 6-9, 2019.* (abstract/poster)
- 9) Friedrichsen, C.<sup>g</sup>, Daroub, S.H, Monroe, M.C, Stepp, and Suhas Wani. 2019. Stakeholders' Mental Models of Constructed Wetland Maintenance in South India. *SSSA International Meetings, San Diego, CA, Jan 6-9, 2019.* (abstract/poster and 5 minute rapid talk)
- 10) Cooper, J.A.<sup>p</sup>, T.A. Lang, and S.H. Daroub. 2019. Impact of water management on greenhouse gas production and carbon stability during rice production in southern Florida. *SSSA International Meetings, San Diego, CA, Jan 6-9, 2019.* (abstract/oral)
- 11) De Camargo Santos, A.<sup>g</sup>, McCray, J.M., Rowland, D.L., Daroub, S.H and Sandhu, H. S. 2019. Sugarcane Response to Nitrogen Fertilization in Shallow Organic Soils of the Everglades Agricultural Area. *SSSA International Meetings, San Diego, CA, Jan 6-9, 2019.* (abstract/oral)
- 12) Daroub, S.H. Sexton, A.<sup>g</sup>, Cooper, J.<sup>p</sup>, Lang, T.A. 2018. 2018. Impact of floating aquatic vegetation suppression on water quality and canal sediment properties in south Florida. *21st World Congress of Soils, Rio de Janeiro, Brazil, August 12-17, 2018* (abstract/oral)
- 13) Cooper, J.A., T.A. Lang, and S.H. Daroub. 2018. Impact of water management on greenhouse gas production and soil fertility during rice production in southern Florida. *21st World Congress of Soils, Rio de Janeiro, Brazil. August 12-17, 2018.* (abstract/oral)
- 14) Friedrichsen, C., Daroub, S.H, Monroe, M.C, Stepp, J.R, Gerber, S., and Li, Y. 2018. Stakeholders' Mental Models of Soil Food Value Chain in South Florida. *World Soil Science Congress (WSSC) Rio, Brazil, August 12-17, 2018.* (abstract/oral)
- 15) Cooper, J.A., T.A. Lang, and S.H. Daroub. 2018. Influence of mineral precipitation and aquatic vegetation on phosphorus removal in canal water from the Everglades Agricultural Area of southern Florida. *12th International Symposium on Biogeochemistry of Wetlands, Coral Springs, FL.* (abstract/oral)
- 16) Friedrichsen, C. <sup>g</sup>, Daroub, S.H, Monroe, M.C, Stepp, J.R, and Gerber, S. 2017. Stakeholders' Mental Models of Soil Management for Food Security in South Florida. *ASA, CSSA, and SSSA International Annual Meetings, Tampa, FL October 22-25, 2017.* (abstract/poster)
- 17) Cooper, J.A. <sup>p</sup>, T.A. Lang, A.E. Sexton and S.H. Daroub. 2017. Influence of mineral precipitation and aquatic vegetation on phosphorus removal in canal water from the everglades agricultural area of southern Florida. *ASA-CSSA-SSSA International Meetings, Tampa, FL.* (abstract/oral)
- 18) Cooper, J.A. <sup>p</sup>, T.A. Lang, A.E. Sexton and S.H. Daroub. 2017. Evaluation of floating aquatic vegetation suppression as a new BMP for phosphorus reduction in the everglades agricultural



area of southern Florida. *Society of Wetland Scientists Annual Meeting*, (abstract/oral), San Juan, Puerto Rico.

- 19) Rodriguez, A.<sup>§</sup>, Daroub, S.H. and S. Gerber. 2017. Influence of carbon lability and flooding treatment in potential oxidation of Histosols in the Everglades Agricultural Area. *ASA-CSSA-SSSA International Meetings*, Tampa, FL. (abstract/oral)
- 20) Cooper, J.A., T.A. Lang, A.E. Sexton and S.H. Daroub. 2017. Influence of floating aquatic vegetation on environmental parameters affecting phosphorus removal in the Everglades Agricultural Area. *Greater Everglades Ecosystem Restoration Conference*, Coral Springs, FL.
- 21) Rodriguez, A.<sup>§</sup>, Daroub, S.H. and S. Gerber. 2017. Influence of carbon lability and flooding treatment in potential oxidation of Histosols in the Everglades Agricultural Area. *Greater Everglades Ecosystem Restoration conference*. Coral Springs, FL. April 2017 (abstract/poster).
- 22) Cooper, J.A.<sup>p</sup>, T.A. Lang, A.E. Sexton, J. Bhada and S.H. Daroub. 2016. Effects of Floating Aquatic Vegetation and Environmental Factors on Soluble Reactive Phosphorus in Florida Canals. *ASACSSA-SSSA International Meetings*, Phoenix, AZ, November 6-9, 2016 (abstract/poster).
- 23) Sexton, A.E.<sup>§</sup>, Bhadha, J.H.<sup>p</sup>, Lang, T.A., and Daroub, S.H. 2016. Impact of Suppression of Floating Aquatic Vegetation on Canal Sediment Properties in South Florida. *ASA/CSSA/SSSA 2016 International Meeting*, Phoenix, AZ, November 6-9, 2016 (abstract/poster)
- 24) Rodriguez, A.<sup>§</sup>, Daroub, SH, and Gerber, S. CARBON FRACTIONS IN SUBSIDING HISTOSOLS IN THE EVERGLADES AGRICULTURAL AREA. *ASA, CSSA, and SSSA International Annual Meetings* (abstract/poster), Phoenix, AZ November 6-9, 2016 (abstract/poster)
- 25) Friedrichsen, C.<sup>§</sup>, Daroub, S.H, Monroe, M.C, Stepp, J.R, and Suhas, S.P. 2016. Stakeholders' Mental Models of Soil Management Relating to Food Security in India. *ASA, CSSA, and SSSA International Annual Meetings* (abstract/poster), Phoenix, AR November 6-9, 2016 (abstract/poster)
- 26) McMillan, M.F.<sup>§</sup>, Reeder, S.R., Daroub, S.H., Moore, K.A., Kostka, S.J., Erickson, J.E., Cisar, J.L., and J. Sartain. Surfactant Effect on Artificially Induced Repellent Sand. *ASA-CSSA-SSSA*. Phoenix, AZ. 2016 (abstract/oral).
- 27) McMillan, M.F.<sup>§</sup>, Madsen, M.A., Daroub, S.H., Kostka, S.J., Erickson, J.E., Moore, K.A., Sartain, J.B. and J.L.Cisar. Surfactant seed coating technology: a method to increased soil moisture and improve rewettability of sands. *European Turfgrass Society*. Algarve, Portugal. 2016 (abstract/oral).
- 28) Jennewein, S.<sup>§</sup>, Daroub, S., Bhadha, J.<sup>p</sup>, Lang, T., Singh, M., and McCray, M. 2016. Managing Shallow Organic Soils to Maximize Yield in the Everglades Agricultural Area. *ASSCT Florida and Louisiana Joint Meeting*. St. Pete Beach, FL (oral)
- 29) Sexton, A.E.<sup>§</sup>, Bhadha, J.H.<sup>p</sup>, Lang, T.A., and Daroub, S.H. 2016. Reducing labile phosphorus in agricultural drainage canal sediments by suppressing floating aquatic vegetation in the Everglades Agricultural Area. *Ecosystem Restoration in Action Conference*, Coral Springs, FL (abstract/poster).

**RECENT GRANT ACTIVITY (SINCE 2010)**

<b>Funding Period</b>	<b>Amount</b>	<b>Agency/Title</b>	<b>Role</b>
10/1/2020-3/31/2026	\$4,991,921 (My share 163,328)	<b>US DOE</b> Energy Efficiency & Renew Energy: Evaluation of Energycane for Bioenergy and Sustainable Agricultural Systems	Co-PI (PI- Hardev Sandu)
10/2020-9/30/2021	\$447,929	<b>EAA-EPD/</b> Evaluation of performance differences of EAA farm basins with similar Best Management Practices	PI
3/1/2020-4/15/2021	\$63,390	<b>EAA-EPD/</b> Cooperative concept on selected EAA farms	PI
10/2019-9/30/2020	\$352,392	<b>EAA-EPD/</b> Floating Aquatic Vegetation Management - Implementation and Verification of BMPs in the Everglades Agricultural Area	PI
11/5/2019-7/31/2020-	\$36,220	<b>Palm Beach County:</b> Lake worth lagoon water quality.	PI
10/2015-9/30/2019	\$1,408,568, (yearly contract of \$352,392)	<b>EAA-EPD/</b> Floating Aquatic Vegetation Management - Implementation and Verification of BMPs in the Everglades Agricultural Area	PI
2015-2018	\$154,745	<b>FDEP/ EPA 319 h</b> Use of Submerged Aquatic Vegetation as Bio-filters in Field Ditches to Reduce Farm P Load	Co-PI
2017/2018	\$3800	<b>UF Research Abroad for Doctoral Students Program. UF International Center and Office for Global Research Engagement.</b> Mental models disrupt wastewater treatment.	PI: graduate student C. Friedrichsen.
2018	\$11,500	<b>Florida Rice Council:</b> Comparative Shifts in Soil Microbial Community Composition due to Rice Production: Influence of Crop Rotations, Soil Depth, Soil Type and Organic Farming Practices.	Co-PI J.A. Cooper, T.A. Lang, S.H. Daroub
2018	\$5200	<b>Phospholutions:</b> Lab Scale Sorption Isotherm and Column Studies of Aluminum Oxide for Assessment as a Reactive Barrier for P Removal.	Co-PI J.A. Cooper, T.A. Lang, S.H. Daroub
2017	collaborative contract for metagenome and metatranscriptome samples	JGI Small Scale Sequencing Program/ Biogeochemistry of carbon and nitrogen cycling in subsiding subtropical soils	Co-PI, W. Martens-Habbena, E. Triplett,
2017	\$4,480	Florida Rice Council: Comparison of Flooded Fallow and Rice Production: Rates of Subsidence, Greenhouse Gases, and Soil Fertility	Co-PI J.A. Cooper, T.A. Lang, S.H. Daroub
12/6/2011-9/30/2012	\$51,016.50	<b>USDA- FAS/</b> Borlaug Fellowship Program for Iraq.	PI
10/2010-9/2015	\$1,644,495 (yearly contract of \$328,899)	<b>EAA-EPD/</b> Floating Aquatic Vegetation Management - Implementation and Verification of BMPs in the Everglades Agricultural Area	PI

<b>Funding Period</b>	<b>Amount</b>	<b>Agency/Title</b>	<b>Role</b>
2010– 2013	\$562,500 (my share \$5700)	<b>USDA/</b> Collaborative Research: How Are Archaeal Diversity, Abundance, and Function Regulated in Agro ecosystems	Co-PI
2010– 2013	\$3,000,000 (my share \$40,000)	<b>USAID/</b> Middle East Water and Livelihoods Initiative	Collaborator (7 US & 10 Middle East Universities and ICARDA)

EAA-EPD- Everglades Agriculture Area – Environmental Protection District; SFWMD= South Florida Water Management District; USDA= United States Dept of Agriculture; FDEP = Florida Department of Environmental Protection; EPA= Environmental Protection Agency; USAID- United States Agency for International Development; USDA-FAS= United States Department of Agriculture- Foreign Agriculture Service; USDA-NIFA= United States Department of Agriculture National Institute of Food and Agriculture US DOI- FWS = United States Department of Interior- Fish and Wildlife Service; US DOE= US Department of Energy; ICARDA= International Center for Research in the Dry Areas

### GRADUATE STUDENTS

- **10 PhD and 15 MS** students graduated under my supervision and served 64 students' committees. I currently advise 1 MS student and 2 postdoctoral associates.

<b>Student</b>	<b>Advisor</b>	<b>Home Dept.</b>	<b>Complete Date</b>
<b>Chair / Co-Chair PhD Committees (10)</b>			
Claire Friedrichsen	Daroub	Soil and Water Science	Aug. 2019
Andres Rodriguez	Daroub	Soil and Water Science	Dec. 2018
Anne Sexton	Daroub	Soil and Water Science	Aug. 2017
Stephen Jennewein	Daroub	Soil and Water Science	Aug. 2017
Mica Franklin	Daroub	Soil and Water Science	Dec. 2015
Ramona Smith	Wilson/ Daroub	Soil and Water Science	Dec. 2012
Jaya Das	Daroub	Soil and Water Science	Dec. 2010
Sylvia Lang	Clark/ Daroub	Soil and Water Science	May 2010
Dara Park	Cisar/ Daroub	Soil and Water Science	May 2006
Nadine Kabengi	Daroub	Soil and Water Science	Dec. 2004
<b>Chair / Co-Chair Masters Committees (16)</b>			
Maryory Orton	Daroub	Soil and Water Science	Anticipated 2022
Rachelle Berger	Daroub	Soil and Water Science	2021
Jonathan Diller*	Daroub	Soil and Water Science	2018

## SAMIRA DAROUB

Adam Ordnorff*	Daroub	Soil and Water Science	2017
Ashley Witkwoski *	Daroub	Soil and Water Science	2016
Mohsen Tootonchi	Daroub	Soil and Water Science	2016
Jason Frank*	Daroub	Soil and Water Science	2015
Odiney Alvarez Campos	Daroub	Soil and Water Science	2015
Tracey Wasyluk	Klock-Moore/Daroub	Soil and Water Science	2015
Ray Bordey	Daroub	Soil and Water Science	2015
Susanna Gomez	Daroub	Soil and Water Science	2013
Louis Philor	Daroub	Soil and Water Science	2011
Drew Lindemann	Daroub	Soil and Water Science	2009
Lalitha Janardhanan	Daroub	Soil and Water Science	2007
Amanda Abell*	Daroub	Soil and Water Science	2007
Claudia Arrieta	Daroub	Soil and Water Science	2006
<b>Member, PhD committees (15)</b>			
Perseveranca Mungofa		Soil and Water Sciences	
Shabnam Sadeghibaniani		Agronomy	
Saroop Sandhu	<i>(External Member/Minor)</i>	Agronomy	
Brianna Benitez		Doctor of Plant Medicine	
Christopher Clingensmith		Soil and Water Sciences	Anticipated 2021
Samar Shawaqfeh	<i>(External Member)</i>	Horticulture	2017
Nicholas Larsen	<i>(External member)</i>	Environmental Horticulture	2015
Kateryna Zhalnina	<i>(External Member)</i>	Microbiology and Cell Science	2014
Pasicha Chaikaew		Soil and Water Science	2014
Amy Hylkema		Soil and Water Science	Dropped
Charles Wajsbrot		Soil and Water Science	2013
Pauric McGroary		Soil and Water Science	2010
Hou-Feng Li	<i>(External Member)</i>	Entomology & Nematology	2009
Melissa Martin		Soil and Water Science	2009
Qin Lu		Soil and Water Science	2009

	<b>Member, Masters Committees (22)</b>		
Djanan Nemours		Soil and Water Sciences	Anticipated 2021
Deborah Spalding		Soil and Water Sciences	Anticipated 2021
Aline Santos De Camargo	<i>(External Member)</i>	Agronomy	2019
Nicole Salvatico		Soil and Water Sciences	2019
Sarah Stover		Soil and Water Sciences	2019
Melissa Savoy		Soil and Water Science	2018
Jeff Ragucci*		Soil and Water Science	2018
Mark Hinz		Soil and Water Science	2018
Anastasia Vaccaro		Agronomy	2017
Hamza Keskin		Soil and Water Science	2015
Ellen Michelle Bourne		Soil and Water Science	2013
Kassidy Klink*		Soil and Water Science	2013
Michelle Ouellette*		Soil and Water Science	2013
Kathleen Lockhart*		Soil and Water Science	2012
Dunne, Cheryl *		Soil and Water Science	2012
Nicole Howard		Soil and Water Science	2012
William Higginbotham		Soil and Water Science	2011
Henrique Mayer		Soil and Water Science	2010
Joaquin Jimenez*		Soil and Water Science	2007
Kofikuma Dzotsi		Agriculture & Biological Engineering	2007
Jennifer Leeds		Soil and Water Science	2006
Hou-Feng Li		Entomology	2006

\*Professional non-thesis Master's Program