

JEHANGIR H. BHADHA, Ph.D.

Assistant Professor

University of Florida-Everglades Research and Education Center.

Soil and Water Science Department

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RESEARCH INTERESTS

Water Quality, Soil Sustainability, Sustainable Agriculture and Nutrient management

ACADEMIC ACHIEVEMENT

2005-2009: Ph.D. Soil and Water Science. University of Florida. Environmental Hydrology (focus).

2003: MS. Geological Sciences. University of Florida. Coastal Hydrology (major), Environmental Engineering (minor).

1999: MSc. Geology. University of Bombay, India. Hydrology (major).

1997: BS (honors). University of Bombay, India. Mineralogy (major), Gemology (minor).

ACADEMIC APPOINTMENTS

Current: Assistant Professor, UF-Soil and Water Science Department. Everglades Research and Education Center, Belle Glade, Florida.

2013-2015: Research Assistant Scientist. UF- Everglades Research and Education Center, Belle Glade, Florida.

Job description-

Developing and testing new Best Management Practices to reduce phosphorus loads from farm canals. Conduct scientific research that involves application of sustainable farming methods to grow sugarcane in the Everglades Agricultural Area. Supervise graduate students. Write grant proposals, reports and peer-reviewed scientific journal articles.

2010-2013: Postdoctoral Associate. UF-Everglades Research and Education Center, Belle Glade, Florida.

Job description-

Testing existing Best Management Practices to reduce phosphorus loads from farm canals. Administering the function of two labs at the Everglades Research and Education Center – Water Quality and Soil and Sediment Laboratory. Supervise graduate students. Write grant proposals, reports and peer-reviewed scientific journal articles.

2009-2010: Postdoctoral Associate. Environmental Hydrology Laboratory, UF-Gainesville, Florida.

Job description-

Conduct extensive field work collecting water and soil samples from the Lake Okeechobee drainage basin area. Testing the feasibility of using a permeable reactive barrier to reduce subsurface phosphorus loads from abandoned beef cattle and dairy lands. Write grant proposals, reports and peer-reviewed scientific journal articles.

2009-2010: Tutor UF Gator Athletes. University of Florida Athletic Association.

Job description-

Conduct one-on-one tutoring sessions with Gator athletes. Prepare learning material, notes, and tests for the students. Grade the tests and supervise the students' progress throughout the semester.

2005-2009: Research Assistant. Department of Soil and Water Science, UF-Gainesville, Florida.

Job description-

Conduct a thorough literature review of water quality in isolated wetlands. Collect water samples from wetlands located in South Florida. Analyze the water samples for nutrients. Attend meetings and conferences and present scientific data. Write reports and peer-reviewed scientific journal articles.

2000-2003: Teaching Assistant. Department of Geological Sciences, UF-Gainesville, Florida.

Job description-

Supervised the homework and field trips for numerous graduate and undergraduate level classes. Conducted lectures on topics related to Geology of Florida, and Hydrogeology. Prepared exams, and graded the tests throughout the semester.

PUBLICATIONS

-----**Peer Reviewed**-----

- Cherry, R., Tootoomchi, M., **Bhadha, J.H.**, Lang, T.A., Karounos, M., Daroub, S.H. 2015. Effect of Flood Depth on Rice water Weevil (Coleoptera: Curculionidae) Populations in Florida Rice Fields. *Journal of Entomological Science*. 50: 311-317.
- **Bhadha, J.H.**, Lang, T.A., Gomez, S.M., Daroub, S.H., Giurcanu, M.C. 2015. Effect of aquatic vegetation on phosphorus loads in the Everglades Agricultural Area. *Journal of Aquatic Plant Management*. 53: 44-53.
- **Bhadha, J.H.**, Jennewein, S., Sanchez, J., Lang, T. 2014. Producing Biochar using a custom designed Top-lit Updraft (TLUD) gasifier. University of Florida IFAS EDIS Publication# SL413.
- **Bhadha, J.H.**, Lang, T.A., Daroub, S.M. 2014. Seasonal delivery of organic matter and metals to farm canals: effect on sediment phosphorus storage capacity. *Journal of Soils and Sediment*. 14: 991-1003.
- **Bhadha, J.H.**, Lang, T.A., Alvarez, O.M., Giurcanu, M.C., Johnson, J.V., Otero, D.C., Daroub, S.H. 2014. Allelopathic Effects of *Pistia stratiotes* (Araceae) and *Lyngbya wollei* Farlow ex Gomont (Oscillariaceae) on Seed Germination. *Sustainable Agriculture Research*. 3: 121-130.
- Rice, R., **Bhadha, J.H.**, Lang, T.A., Daroub S., Baucum, L. 2013. Farm-Level Phosphorus-Reduction Best Management Practices in the Everglades Agricultural Area. *Florida State Horticultural Society. Annual Proceeding*. NR-3
- Das, J., Daroub, S.H., **Bhadha, J.H.**, Lang, T.A., Josan, M.S. 2012. Phosphorus release and equilibrium dynamics of canal sediments within the Everglades Agricultural Area, Florida. *Water Air Soil Pollution*. 223: 2865-2879.
- **Bhadha, J.H.**, Daroub, S.H., Lang, T.A. 2012. Effect of kinetic control, soil:solution ratio, electrolyte cation, and others, on equilibrium phosphorus concentration. *Geoderma*. 173-174: 209-214.
- Das, J., Daroub, S.H., **Bhadha, J.H.**, Lang, T.A., Diaz, O., Harris, W. 2012. Physicochemical assessment of main and farm canal sediments within the Everglades Agricultural Area, Florida. *Journal of Soils and Sediments*. 12: 952-965.
- Miller, M., **Bhadha, J.H.**, O'Connor, G.A., Jawitz, J.W., Mitchell, J. 2011. Aluminum water treatment residuals as permeable reactive barrier sorbents to reduce phosphorus losses. *Chemosphere*. 83: 978-983.
- **Bhadha, J. H.**, Jawitz, J.W., Min, J.H. 2010. Phosphorus mass balance and internal load in an impacted subtropical isolated wetland. *Water Air and Soil Pollution*. 218: 619-632.

- **Bhadha, J.H.**, Harris, W.G., Jawitz, J.W. 2010. Soil Phosphorus Release and Storage Capacity from an Impacted Subtropical Wetland. *Soil Science Society of America Journal*. 74: 1816-1825.
- **Bhadha, J.H.**, and Jawitz, J.W. 2010. Characterizing deep soils from an impacted subtropical isolated wetland: Implications for phosphorus storage. *Journal of Soils and Sediments*. 10: 514-525.
- **Bhadha, J.H.**, Schmidt, C., Rooney, R., Indeglia, P., Kertesz, R., Bevc, E., Sansalone, J.J. 2009. Granulometric and metal distributions for post-Katrina surficial particulate matter recovered from New Orleans. *Journal of the American Water Resources Association*. 45: 1434-1447.
- **Bhadha, J.H.**, and Jawitz, J.W. 2008. The coastal dune lakes of Florida: Trends in Water quality and changing land-use practices. *Water Resources IMPACT*. 10: 15-18.
- **Bhadha, J.H.**, Martin, J.B., Jaeger, J., Lindenberg, M., Cable, J.E. 2007. Surface and pore water mixing in estuaries: implications for nutrient and Si cycling. *Journal of Coastal Research*. 23: 878-891.

-----**Book Chapter**-----

- **Bhadha, J.H.** 2012. Isolated wetlands within the Lake Okeechobee drainage basin of Florida: source and sink of phosphorus. Chapter In (Eds. Baranyai, A. & Benkô, D.), *Wetlands: Ecology, Management and Conservation*. ISBN: 978-1-62100-918-4.

-----**Technical Reports**-----

- Daroub, S.H., Lang, T.A., **Bhadha, J.H.** 2015. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.
- Daroub, S.H., Lang, T.A., **Bhadha, J.H.** 2014. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.
- Daroub, S.H., Lang, T.A., **Bhadha, J.H.** 2013. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.
- **Bhadha, J.H.**, Lang, T.A., Daroub, S.H. 2012. Irrigation Lake Water Quality Final Report. Submitted to Colonial Country Club, Fort Myers, FL.
- Daroub, S.H., Lang, T.A., Josan, M.S., **Bhadha, J.H.** 2012. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.
- Daroub, S.H., Lang, T.A., Josan, M.S., **Bhadha, J.H.** 2011. Synoptic Sediment Collection and Analysis Investigation of the Primary Canals in two of the Eastern EAA Sub-basins. Submitted to South Florida Water Management District.
- Daroub, S.H., Lang, T.A., Josan, M.S., **Bhadha, J.H.** 2011. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.
- Daroub, S.H., Lang, T.A., Josan, M.S., **Bhadha, J.H.** 2010. Implementation and Verification of BMPs for Reducing P Loading from the Everglades Agricultural Area: Floating Aquatic Vegetation Impact on Farm Phosphorus Load. Annual Report submitted to the Everglades Agricultural Area Environmental Protection District and the South Florida Water Management District.

SYNERGISTIC ACTIVITIES

Funded-Grants

- 2015: Effects of flood level and single drawdown on rice yield and water quality (Second Year). \$25,228. (PI: **Bhadha J.H.**)
- 2014: Effects of flood level and single drawdown on rice yield and water quality. \$22,116. (PI: **Bhadha J.H.**)
Dean of Research Office at the University of Florida: Endowment award for Innovative Agriculture Research. \$3000. (PI: **Bhadha, J.H.**)
- 2013: Use of submerged aquatic vegetation as bio-filters in field ditches to reduce farm P load. \$262,332. (PI: Lang, T.; Co-PI: **Bhadha, J.H.**)
Dean of Research Office at the University of Florida: Endowment award for Innovative Agriculture Research. \$3000. (PI: **Bhadha, J.H.**)
- 2012: Water quality of the irrigation lake: Colonial Country Club, Fort Myers, Florida. \$12,600. (PI: Daroub, S.; Co-PI: **Bhadha, J.H.**)
- 2007-2008: EPA-P3. A sustainable approach to preserve the Choctawhatchee Coastal Dune Lakes of Florida. \$10,000. (PI: Jawitz, J. W.; Co-PI: **Bhadha, J.H.**)

Presentations and Workshops (Since 2010)

-----International-----

- Daroub, S.H., Lang, T.A., **Bhadha, J.H.** Why BMPs Are Working in the Everglades Agricultural Area in South Florida. ASA, CSSA, and SSSA International Annual Meetings, November 15-18, 2015. Minneapolis, MN. USA.
- Tootoonchi, M., Lang, T.A., **Bhadha, J.H.**, Cherry, R.H., Daroub, S.H. Reducing Drainage Phosphorus Loads through Rice Cultivation in South Florida. ASA, CSSA, and SSSA International Annual Meetings, November 15-18, 2015. Minneapolis, MN. USA.
- Alvarez-Campos, O., Lang, T.A., **Bhadha, J.H.**, McCray, J., Gao, B., Glaz, B. Daroub, S.H. Biochar and Mill Ash Use As Soil Amendments to Grow Sugarcane in Sandy Soils of South Florida. ASA, CSSA, and SSSA International Annual Meetings, November 15-18, 2015. Minneapolis, MN. USA.
- Sexton A., **Bhadha, J.H.**, Lang, T.A., Daroub, S.H. Controlling Floating Aquatic Vegetation to Reduce Labile Phosphorus Pools in Drainage Canal Sediments. ASA, CSSA, and SSSA International Annual Meetings, November 15-18, 2015. Minneapolis, MN. USA.
- Bhadha, J.H.**, Lang, T.A., Daroub, S.H. Capture and Characterization of Particulates Exported from Farm Drainage During a Storm Event: Effect on Phosphorus Loading. International meeting of the American Geophysical Union, December 15-19, 2014. San Francisco, CA. USA.
- Alvarez-Campos, O., Daroub, S.H, **Bhadha, J.**, Lang, T.A., McCray, J.M., Gao, B., Glaz., B. Use of Biochars Produced from Local Residue Feedstocks to Grow Sugarcane on Sandy Soils in South Florida. ASA, CSSA, and SSSA International Annual Meetings, November 2-5, 2014. Long Beach, CA. USA.
- Tootoonchi, M., Lang, T.A., **Bhadha, J.H.**, Daroub, S.H. Flood Level and Single Drawdown Effects on Rice Yield and Water Quality. ASA, CSSA, and SSSA International Annual Meetings, November 2-5, 2014. Long Beach, CA. USA.
- Bhadha, J.H.**, Lang, T.A., Daroub, S.H. Role of Aquatic Vegetation on Phosphorus Loads in the Everglades Agricultural Area. ASA, CSSA, and SSSA International Annual Meetings, November 3-6, 2013. Tampa, FL. USA.
- Gomez S.M., **Bhadha, J.**, Lang, T.A., Daroub, S.H. 2013. Recycling Agricultural By-Products to Grow Sugarcane on Sandy Soils In South Florida. ASA, CSSA, and SSSA International Annual Meetings, November 3-6, 2013. Tampa, FL. USA.

Alvarez-Campos, O., Daroub, S.H, **Bhadha, J.**, Lang, T.A. Allelopathic Effects of Dried and Composted Pistia Stratiotes and Lyngbya Wollei on Rice and Sorghum Growth. ASA, CSSA, and SSSA International Annual Meetings, November 3-6, 2013. Tampa, FL. USA.

Bhadha, J.H., Daroub, S.H., Lang, T.A. Implementation and verification of BMPs to reduce farm P loads: A long-term collaborative effort. 7th International Phosphorus Workshop. September 1-4, 2013. Uppsala, Sweden.

Bhadha, J., Daroub, S.H, Lang, T.A., M. Josan. 2012. Achieving Everglades Restoration: The Best Management Practices Program in South Florida. International Society of Sugar Cane Technologists. September 9-14, 2012. Townsville, Australia.

Lang, T.A., Daroub, S.H, **Bhadha, J.H.**, Josan, M. 2012. Improving the effectiveness of BMPs in the Everglades Agricultural Area. Joint Conference of the 9th 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.

Daroub, S.H., Gomez S.M., Lang, T.A., **Bhadha, J.H.** Use of Organic Soil Amendments to Grow Sugarcane on Sandy Soils in South Florida. ASA, CSSA, and SSSA International Annual Meetings, October 21-24, 2012. Cincinnati, OH. USA.

Gomez, S.M., **Bhadha, J.H.**, Lang, T.A., Daroub, S.H. Aquatic Vegetation, Sediments, and Water Quality in the Everglades Agricultural Area Canals. ASA, CSSA, and SSSA International Annual Meetings, October 21-24, 2012. Cincinnati, OH. USA.

Bhadha, J.H., Lang, T.A., Daroub, S.H. Capture and characterization of particulate phosphorus from farm drainage waters in the Everglades Agricultural Area. International meeting of the American Geophysical Union, December 3-7, 2012. San Francisco, CA. USA.

Josan, M., Daroub, S.H., Lang, T.A., **Bhadha, J.H.**, Harris, W. Determination of Organic Carbon in the EAA Canal Sediments: Wet and Dry Methods. ASA, CSSA, and SSSA International Annual Meetings, October 16-19, 2011. San Antonio, TX. USA.

Das, J., Daroub, S.H., Josan, M., **Bhadha, J.H.**, Lang, T.A. Understanding the P Chemistry in the Everglades Agricultural Area Canals. ASA, CSSA, and SSSA International Annual Meetings, October 16-19, 2011. San Antonio, TX. USA.

-----**National**-----

Bhadha, J.H. Rice arsenic (As) status grown on periodically flooded histosols: From ground to grain. Florida Rice Council Meeting. November 20, 2015. Belle Glade, FL.

Bhadha, J.H., Lang, T.A., Daroub, S.H. Aquatic Vegetation and Its Role on Phosphorus Dynamics in the Everglades Agricultural Area. Greater Everglades Ecosystem Restoration. April 22, 2015. Coral Springs, FL.

Alvarez, O., Lang, T.A., **Bhadha, J.H.**, McCray, M. Gao, B., Glaz, B., Daroub, S.H. Biochar and Mill Ash Use as Soil Amendments to Grow Sugarcane on Sandy Soils of South Florida. April 22, 2015. Coral Springs, FL.
Jennewein, S., Daroub, S.H., **Bhadha, J.H.**, Singh, M., McCray, M., Lang, T.A. Developing Sustainable Soil Management Practices for Organic Soils of the Everglades Agricultural Area. April 22, 2015. Coral Springs, FL.

Tootoonchi, M., Lang, T.A., **Bhadha, J.H.**, Daroub, S.H. Impact of Water Management on Rice Yields, Rice Water Weevil Infestation and Drainage Water Quality in the Everglades Agricultural Area. April 22, 2015. Coral Springs, FL.

Sexton, A.E., **Bhadha, J.H.**, Lang, T.A., Daroub, S.H. Reducing Labile Phosphorus in Agricultural Canal Sediment by Controlling Floating and Submerged Aquatic Vegetation. April 22, 2015. Coral Springs, FL.

Bhadha, J.H., Tootoonchi, M., Lang, T.A., Daroub, S.H. Effects of Flood Level and Midseason Drawdown on Rice Yield and Water Quality. Florida Rice Grower's Meeting. February 12, 2015. Belle Glade, FL.

Jennewein, S., Daroub, S.H., **Bhadha, J.H.**, Singh, M., McCray, M., Lang, T. Developing Sustainable Soil Management Practices for Organic Soils of the Everglades Agricultural Area. 15th Annual Soil and Water Science University of Florida Research Forum. September 18, 2014. Gainesville, FL.

Jennewein, S., Daroub, S.H., **Bhadha, J.H.**, Singh, M., McCray, M., Lang, T. Developing Sustainable Soil Management Practices for Organic Soils of the Everglades Agricultural Area. Institute of Food and Agricultural Sciences Third Annual Graduate Research Symposium. November 20, 2014. Belle Glade, FL.

Alvarez, O., Daroub, S.H., **Bhadha, J.H.**, Gao, B., Glaz, B., Lang, T.A. Use of Biochars Produced from Local Residue Feedstocks to Grow Sugarcane on Sandy Soils in South Florida. 15th Annual Soil and Water Science University of Florida Research Forum. September 18, 2014. Gainesville, FL.

Alvarez, O., Daroub, S.H., **Bhadha, J.H.**, Lang, T.A., McCray, J.M., Gao, B., Glaz, B. 2014. Use of Biochars Produced from Local Residue Feedstocks to Grow Sugarcane on Sandy Soils in South Florida. Everglades Research and Education Center Graduate Research Symposium. November 20, 2014. Belle Glade, FL.

Sexton, A., **Bhadha, J.H.**, Daroub, S.H., Lang, T.A. Reducing labile phosphorus in agricultural canal sediment by controlling floating aquatic vegetation. 15th Annual Soil and Water Science University of Florida Research Forum. September 18, 2014. Gainesville, FL.

Sexton, A., **Bhadha, J.H.**, Daroub, S.H., Lang, T.A. Reducing labile phosphorus in agricultural canal sediment by controlling floating aquatic vegetation. Institute of Food and Agricultural Sciences Third Annual Graduate Research Symposium. November 20, 2014. Belle Glade, FL.

Tootoonchi, M., Lang, T.A., **Bhadha, J.H.**, and Daroub, S.H. 2014. Effects of Flood Level and Midseason Drawdown on Water Quality and Rice Yield. 15th Annual Soil and Water Science University of Florida Research Forum. September 18, 2014. Gainesville, FL.

Tootoonchi, M., Lang, T.A., **Bhadha, J.H.**, and Daroub, S.H. 2014. Flood Level and Single Drawdown Effects on Rice Yield and Water Quality. Institute of Food and Agricultural Sciences Third Annual Graduate Research Symposium. November 20, 2014. Belle Glade, FL.

Bhadha J. H. Efforts to reduce phosphorus loads in the Everglades Agricultural Area with a vision for sustainable agriculture. University of Florida, Soil and Water Science Seminar Series. October 7, 2013. Gainesville, FL.

Alvarez, O., **Bhadha, J.H.**, Lang, T.A., Giurcanu, M.C., Daroub, S.H. Allelopathic Effects of Dried and Composted Pistia stratiotes and Lyngbya wollei on Rice and Sorghum Growth. 14th Annual Soil and Water Science University of Florida Research Forum. September 6, 2013. Gainesville, FL.

Alvarez, O., **Bhadha, J.H.**, Lang, T.A., Giurcanu, M.C., Daroub, S.H. 2013. Allelopathic Effects of Dried and Composted Pistia stratiotes and Lyngbya wollei on Rice and Sorghum Growth. Second Annual South Florida Graduate Research Symposium University of Florida Research Forum. July 30, 2013. Fort Lauderdale REC, Ft Lauderdale FL.

Bhadha, J.H. Isolated Wetlands within the Lake Okeechobee Drainage Basin of Florida: Source and Sink of Phosphorus. Everglades Research and Education Center, April 6, 2012. Belle Glade, FL.

Alvarez, O., **Bhadha, J.H.**, Lang, T.A., Odero, C.D., Daroub, S.H. Allelopathic Effects of Aquatic Vegetation on Seed Germination and Root Growth, 13th Annual Soil and Water Science University of Florida Research Forum. September 7, 2012, Gainesville, FL.

Alvarez, O., **Bhadha, J.H.**, Lang, T.A., Odero, C.D., Daroub, S.H. Allelopathic Effects of Aquatic Vegetation on Seed Germination and Root Growth. Inaugural South Florida Graduate Research Symposium, University of Florida July 18, 2012. Fort Lauderdale REC, Ft Lauderdale, FL.

Extension Services (Since 2010)

- The Historical Society of Palm Beach County Annual Scarecrow Festival & Contest. Everglades Agricultural Area of South Florida, display booth. October 17, 2015.

- Field Day presentation at Everglades Research and Education Center. Demonstration on BMPs and Water quality in the EAA. April 2015. (180 attendees)
- Visiting Scientist from Cuba Sugarcane Research Institute (INICA). With changes in Cuba policy announced by President Obama last month, the prospects for joint research projects. An open discussion. January 2015.
- Conservation in Action Tour “The Unique Story of the Everglades Agricultural Area” October 2014 (180 attendees)
- American Society of Sugar Cane Technologist. Field tour and presentation “Water Quality and Best management Practices in the EAA”. June 2014. (80 attendees)
- Trilateral Program: USAID, Haiti and Brazil delegation. Field tour and presentation “Best Management Practices Used to Lower Phosphorus Loads from the Everglades Agricultural Area Farms”. March 2013. (15 attendees)
- Florida Spring Regulator Tour. Florida Fruits and Vegetable Association. Field tour and presentation “The BMP Program to Reduce EAA Farm P Loads”. March 2013. (38 attendees)
- St. Thomas School of Law. Field tour and presentation “The BMP Program to Reduce EAA Farm P Loads”. November 2012.
- Florida Earth Foundation, Water Quality Module presentation “An Overview of Nutrient Chemistry in Subtropical Ecosystems”. August 2012. (15 attendees)
- Florida Spring Regulator Tour. Florida Fruits and Vegetable Association. Field tour and presentation “The BMP Program to Reduce EAA Farm P Loads”. March 2012. (30 attendees)
- Field tour and presentation “soils in the EAA, farming techniques, and water quality”. November 2011. Delegation from Taiwan. (10 attendees)
- Field tour and presentation “soils in the EAA and farming techniques”. October 2011. Delegation from Thailand. (15 attendees)
- Florida Spring Regulator Tour. Florida Fruits and Vegetable Association. Field tour and presentation “The BMP Program to Reduce EAA Farm P Loads”. March 2011. (31 attendees)
- Everglades Research and Education Center Field-day tour and presentations open to public. April 2011. (100 attendees)
- Florida Spring Regulator Tour. Florida Fruits and Vegetable Association. Field tour and presentation “The BMP Program to Reduce EAA Farm P Loads”. March 2010. (20 attendees)
- Every summer graduate students from UF attending the Urban and Agricultural Environment Class (taught by Dr. George Hochmuth) visits all UF extension services including a one day visit to the EREC. June 2010, 2011, 2012, and 2013.
- Two Best Management Practices training workshops every year that last for five hours and include all aspects of BMPs in the EAA. Dates: April 22, 2010; September 22, 2010; April 28, 2011, September 29, 2011; April 19, 2012; September 27, 2012; April 27, 2013; November 16, 2013; April 24 2014, October 27 2014. (120 attendees per event)

Committees

- Graduate Student Committees - Currently serving as co-advisor to three graduate students. Served on two graduate student committees in the past.
- Chair and Convener - American Geophysical Union Fall Meeting, session titled “Biochar Research: Advances in production and application”, December 2014 & 2015.
- Chair - Third Annual Graduate Student Symposium, November 2014.
- Everglades Research and Education Center Social Committee, 2014-2015.
- Lead Faculty - US-EPA P3 Project: a national student design competition for sustainability focusing on people, prosperity and the planet, December 2011.

- Advisory Committee - University of Florida Gators Athletic Association content tutors, 2009-2010.
- President - Student representatives for the Department of Soil and Water Science at the University of Florida, 2008-2009.
- Project Leader – American Water Resources Association study related to contaminated sediments post hurricane Katrina, New Orleans, 2005-2007.

Affiliations

- American Geophysical Union
- Soil Science Society of America
- American Water Resources Association
- American Society of Sugarcane Technologist
- International Society of Sugarcane Technologist
- Geological Society of America
- Florida Organic Growers
- Florida Earth Foundation
- Florida Society of Environmental Analysts
- Honor Society of Agriculture
- University of Florida Wetlands Club
- University of Florida Hydrologic Sciences Academic Cluster

Technical Expertise

- Collection and classification of minerals, rocks and soil samples.
- Wetland delineation.
- Using field instruments such as, pore water equilibrators, multisamplers, seepage meters pressure transducers.
- Deploy coring devices to retrieve *in situ* sediment sections using vibracoring and suction coring technique.
- GIS application using ARC-GIS, ARC-VIEW.
- X-ray powder diffraction analysis for identifying mineral phases.
- Mass spectrometer for stable isotope analysis.
- Ion chromatograph for cation-anion analysis.
- Gas chromatograph for dissolved organic compound analysis.
- Geotek multi-sensor core logger for analyzing bulk density and digital imaging.
- Shimadzu TOCVN analyzer for measuring total and dissolved organic carbon.