14th Annual
Soil and Water Science Research Forum
Program

September 6, 2013
Auditorium - J. Wayne Reitz Union

8:30 am – 9:15 am	Registration
9:15 am – 9:30 am	Opening Remarks Dr. K. Ramesh Reddy, SWSD Chair
9:30 am – 10:30 am	**Technology, Stewardship, & Quality of Life: Chemicals of Emerging Concern in the Balance.** Dr. Linda Lee Agronomy Department - Associate Department Head Professor of Agronomy; Expertise: Environmental Chemistry Ecological Science & Engineering Interdisciplinary Graduate Program - Program Head Purdue University
10:30 am – 10:50 am	**BREAK**

SESSION I – Oral Presentations
Auditorium – J. Wayne Reitz Union

10:50 am – 12:30 pm	Invited Faculty Session – Sustainability of Land and Water Resources

Session Chair: Dr. James Jawitz

10:50 am – 11:10 am	**Global Agriculture Sustainability.** Dr. George Hochmuth, Professor Department of Soil and Water Science University of Florida
11:10 am – 11:30 am	**Land Use Change and Long-Term Sustainability of Citrus Production in Central Florida.** Dr. Arnold Schumann, Associate Professor Citrus Research and Education Center – Lake Alfred, FL. Department of Soil and Water Science University of Florida

11:30 am – 11: 50 am **Sustainability of Agriculture in South Florida and the Everglades Restoration.**
Dr. Yuncong Li, Professor
Tropical Research and Education Center – Homestead, FL.
Department of Soil and Water Science
University of Florida

11:50 am – 12:10 pm **Thresholds in Soil Response to Climate Change and Land Use.**
Dr. Marc Kramer, Associate Professor
Department of Soil and Water Science
University of Florida

12:10 pm – 12: 30 pm **Urban Water Resource Sustainability**
Dr. James Jawitz, Professor and Associate Chair
Department of Soil and Water Science
University of Florida

12:30 pm – 1:30 pm **LUNCH**

SESSION II – Oral Presentations

Auditorium – J. Wayne Reitz Union

1:30 pm – 2:45 pm – Graduate Student Oral Presentations

Session Chairs: Pasicha Chaikaew, Wade Ross, and Jian Wu

Student Presentation (1:30 pm – 1:45 pm):

Impacts of Management Intensification on Soil Carbon Stocks in Subtropical Grasslands.

Authors: *Julius Adewopo, Sutie Xu, Maria L. Silveira, Stefan Gerber, Lynn Sollenberger, and Timothy Martin*

Student Presentation (1:45 pm – 2:00 pm)

Response of Carbon and Metals to Experimentally-Controlled Water Tables.

Authors: *Chumki Banik, Willie Harris, Andrew Ogram, Vimala Nair, and Matthew Cohen*

Student Presentation (2:00 pm – 2:15 pm):

Socio-economic Valuation of Ecosystem Services in the Suwannee River Basin.

Authors: *Pasicha Chaikaew, Alan W. Hodges, and Sabine Grunwald*

Student Presentation (2:15 pm – 2:30 pm):

Land Use Effects on Nitrous Oxide Production and Consumption in Subtropical Peatlands.

Authors: *Jing Hu***,** *Kanika S. Inglett, Alan L. Wright, and K. Ramesh Reddy*

Student Presentation (2:30 pm – 2:45 pm):

Employing a Nitrogen Budget and Crop Model SUBSTOR to Track Nitrogen Losses from Potato Production in Sandy Soil.

Authors: *Rishi Prasad and George Hochmuth*

SESSION III

Student Presentations - Poster Viewing and Reception

East and West Gallery, J. Wayne Reitz Union

3:00 – 4:00 pm **Poster Session I**
a. Judging of Even Numbered Posters Will Occur During This Time

4:00 – 5:00 pm **Poster Session II**
a. Judging of Odd Numbered Posters Will Occur During This Time

Judged Poster Titles & Authors

1. Allelopathic Effects of Dried and Composted *Pistia stratiotes* and *Lyngbya wollei* on Rice and Sorghum Growth.
   Odiney Alvarez*, Timothy A. Lang, Jehangir H. Bhadha, Mihai C. Giurcanu, and Samira H. Daroub*

2. Growth, Yield, and Nitrogen Accumulation by Sesame (*Sesamum indicum*L.) grown in North Central Florida.
   Annie Couch*, George Hochmuth, Diane Rowland, and Jerry Bennett*

3. Obtaining Model Input Parameters for Predicting Phosphorus Leaching using PLEASE Model.
   Biswanath Dari*, Vimala D. Nair and Rao Mylavarapu*

4. The Contributions of Nitrogen and Irrigation Management in Reducing the Risk of N Leaching in Florida Potato Production.
   Amanda Desormeaux *and George Hochmuth*

5. Nutrient Cycling in Upper St. Johns River Conservation Area Wetlands.
   Shannon L. Duffy*, Angelique K. Bochnak, Kimberli J. Ponzio, and Todd Osborne*

6. Feasibility of Using Nitric Oxide Donors for Removing Biofilms from Industrial Surfaces.
***Ian A. Durie**, Charles Chen, Max Teplitski, and Massimiliano Marvasi*

7. Evaluating Agricultural Irrigation Water Salinity and Implications of Water Conservation Practices on Future Water Management Decisions in the Tri-County Agricultural Area, Northeast Florida.
***Eunice Eshun** and Mark Clark*

8. Evaluation of Nitrogen Management Strategies for Impacts on Nitrate Leaching and Quality of St. Augustinegrass Turfgrass.
***Rajendra Gautam** and George Hochmuth*

9. The Role of Soft Rot Bacteria in the Proliferation of Salmonella in Tomatoes.
***Andree George**, Jason Noel, and Max Teplitski*

10. Children's Exposure to As from CCA Wood Staircases.
***Julia "Ky" Gress**, Lena Ma, and Jay Lessl*

11. Isolation and Identification of Glyphosate Degrading Microorganisms in the Florida Everglades and Belize Peatlands.
***Arnav Gupta**, Elise Morrison, and Andrew Ogram*

12. Methanotrophic Activity in Subtropical Freshwater Wetlands: Influence of Nutrients and Methane Availability.
***Francisca Hinz**, Kanika Sharma Inglett, Patrick Inglett, and K. Ramesh Reddy*

13. Sedimentary δ^{15}N Signal Represents the Labile Rather than Bulk Nitrogen Pool.
***Yuanyuan Huang** and Stefan Gerber*

14. Florida Wildfires during the Holocene Climatic Optimum.
***Kalindhi Larios**, Stefan Gerber, Mark Brenner, and Francis Putz*

15. Imidacloprid Fate and Transport in Florida Flatwoods Soils during Control of the Asian Citrus Psyllid.
***Jorge A. Leiva**, Peter Nkedi-Kizza, Kelly Morgan, Jawwad A. Qureshi, and Thomas A. Obreza*

16. Improving Algal Harvesting Methods: Cultivation of Filamentous Algae Spheroids.
***Tommie Brent Lovato** and Ann C. Wilkie*

17. Effects of Different Land Uses on Base-Flow Nitrogen Concentrations on the Main Campus of the University of Florida.
***Jiexuan Luo**, George Hochmuth, and Mark Clark*

18. The Response of Microbial Communities to Shifting Nutrient Limitations in the Florida Everglades.
***Elise Morrison**, Hee-Sung Bae, Zhenli He, J. Zhou, and Andrew Ogram*

19. Managing Expectations: Creating a Community Based Stormwater Pond Nutrient Management Program.
***Charles Nealis**, Mark Clark, and Paul Monaghan*

20. Effect of Temperature and Fertilization Method on Soil Respiration and Fate of Maize Carbon in Cropland Soils of Northeast China.
***Jiubo Pei**, Patrick Inglett, J.K. Wang, and H. Li*

21. A Comparison of Analytical Laboratory and Optical In Situ Methods for the Measurement of Nitrate in North Florida Water Bodies.
***Alexandra Rozin** and Mark Clark*

22. Incorporating Microbial Physiology into Soil Organic Carbon (SOC) Decomposition Models.
***Debjani Sihi**, Stefan Gerber, Kanika Sharma Inglett, and Patrick Inglett*

23. Soil Carbon Storage and Persistence across a Chronosequence of Management Intensive Grazing Dairies, an Emerging Land Use Practice in East Central Georgia.
***Brandon Snook**, Marc Kramer and Aaron Thompson*

24. SbIII and SbVuptake and Efflux by *Pteris vittata* and *Pteris ensiformis.*
***Rujira Tisarum**, Lena Ma, and Bala Rathinasabapathi*

25. Characterization of Soil Organic Nitrogen Pools in Subtropical Wetlands.
***Christine VanZomeren**, Malak Tfaily, Todd Osborne, William Cooper, and K. Ramesh Reddy*

26. Sugarcane (*saccharum officinarum*) Water Use in Florida's Sandy Soil with Subsurface Drip Irrigation.
***Jose Villalobos** and Kelly Morgan*

27. The Interaction between *Phytophthora spp.* and *Candidatus* Liberibacter *spp.* Damage to Citrus Fibrous Root.
***Jian Wu**, Evan Johnson, Diane Bright, and Jim Graham*

28. Impacts of Land Use Change on Soil Carbon and Microbial Activities in Subtropical Grassland Ecosystems.
***Sutie Xu**, Julius Adewopo, Maria Silveira, and Kanika Sharma Inglett*

29. Light Reflection Visualization to Determine Solute Diffusion into Clay.
***Minjune Yang**, Michael D. Annable, and James Jawitz*

Non-Judged Poster Titles & Authors:

30. Enhanced Cr(VI) Reduction and As(III) Oxidation in Ice: Important Role of Biochar Dissolved Organic Matter.
***Dr. Xiaoling Dong,** Lena Ma, and Yuncong Li*

31. Role of Physicochemical and Biochemical Soil Characteristics on Fate of Pathogenic Bacteria.
Kimberly Dreaden*, Aurelien Desaunay, Guillaume Paternostre, and Jeffrey Ullman*

32. Influence of Arsenic and Phosphorus Competitive Uptake on Arsenic Tolerance in Bacteria and Arsenic-Hyperaccumulator *Pteris vittata* L.
Dr. Piyasa Ghosh, Lena Ma, and Bala Rathinasabapathi

33. Temperature Sensitivity of Enzyme Kinetic Parameters in Subtropical Wetland Soils of Contrasting Nutrient Status.
Swati Goswami, Patrick Inglett, ***Debjani Sihi****, and Kanika Sharma Inglett*

34. Carbon Dynamics, Productivity and Efficiency of a Beech Forest under Climate Change – A Simulation Study at Individual and Stand Level for a NW Europe Region.
Yan Liao *and Thomas Rotzer*

35. Algal Bioremediation of Reverse Osmosis Pretreated Landfill Leachate: Optimization and Outdoor Growth.
Carlos Lopez *and Ann Wilkie*

36. Denitrification Potential of Urban Impacted Riparian Zones throughout Tampa, FL. and Surrounding Areas.
John Roberts*, Michael Andreu, Kanika Sharma Inglett, Wayne Zipper, and Matthew Cohen*

37. Assessing Stream-Mediated Seed and Shoot Dispersal of Invasive Plants in Florida.
Jason Seitz *and Mark Clark*