

## **Soil and Water Science Inaugural Seminar** *[Inaugural Seminar in Recognition of Dr. Daroub's Promotion to Full Professor]*

- Speaker:** **Dr. Samira Daroub**  
Professor  
Everglades Research & Education Center  
University of Florida  
Institute of Food & Agricultural Sciences  
College of Agricultural & Life Sciences  
Soil & Water Science
- Title:** **Water Quality and Sustainable Agriculture  
in the Everglades Agricultural Area.**
- Date:** Monday, February 11, 2013
- Time:** 3:00 pm
- Location:** McCarty Hall A Room G186



The Everglades in south Florida is the largest subtropical wetland in the continental United States. A portion of the northern Everglades was drained at the beginning of the 20<sup>th</sup> century for agricultural and urban purposes, becoming what is known today as the Everglades Agricultural Area (EAA). The EAA basin, divided into five sub-basins is planted predominantly to sugarcane. To farm successfully, growers in the EAA actively drain their fields via an extensive array of canals, ditches, and pumps. Concerns about the negative impacts of drainage waters leaving the basin and eventually entering the Everglades National Park prompted the Florida Legislature to adopt the Everglades Regulatory Program. The main objective of the program is to implement Best Management Practices (BMPs) to reduce phosphorus (P) loads from the EAA basin by 25% compared to a pre-BMP baseline period. Since its inception in 1995, the BMP program has been very successful with an average of 50% annual P load reduction. There are, however, spatial and temporal differences in BMP performance. Another major concern is the subsidence (oxidation) of organic soils and its effects on agricultural sustainability in the EAA. This presentation will outline the development of the BMP program, water quality trends, and sustainable agriculture in the EAA. The presentation will discuss on-going projects that investigate the role of canal sediments and floating aquatic vegetation on drainage water quality and farm canal sediment accumulation rates and characteristics. The long-term goal is to develop new, innovative BMPs to further reduce P loads especially in sub-basins with higher loads. The balance between environmental concern and agricultural production is a critical research need that I continuously address in my program.

For our off-campus students, off-campus faculty, and on-campus students who cannot physically attend, all seminars can be viewed at: <http://mbreeze.ifas.ufl.edu/seminars>. In addition, all seminars are archived for viewing at <http://swsde.ifas.ufl.edu/seminars.asp>.