

Ph.D. position available in soil nutrient cycling and soil health

I am looking for a Ph.D. student to work on the integration of perennial grasses in row crop systems and how it affects soil nutrient cycling and soil health. Perennial grasses – e.g., bahia grass (*Paspalum notatum*) – increase cotton and peanut yields and soil organic matter (SOM) in the hot and humid climate of the Southeastern US, but their long-term impact on carbon (C), nitrogen (N) and phosphorus (P) cycling remains to be better understood. This position will focus on a set of long-term experiments established in North Florida and Southeast Alabama that compare the effects of perennial grass integration with or without animal grazing and irrigation. Several topics related to C, N and P cycling could be pursued, depending on qualifications and interests of the student. Topics could include building nutrient budgets for different rotations, measuring long-term changes in soil C and P dynamics, quantifying N-fixation inputs with ¹⁵N, and evaluating the effects of different treatments on soil health indicators. This project will require field work and sampling, laboratory analyses (e.g., soil extractions, crop analyses), data analysis (e.g., nutrient budgets), and extension/outreach activities (e.g., field days).

The selected student, expected to start in Summer 2018, will work within the Soil and Water Sciences Department, based in Gainesville, Florida. This position will require collaboration with researchers from other departments (e.g., Dr. David Wright in Agronomy) and travel to Northwest Florida and Southeast Alabama for field work and outreach/extension activities. The Soil and Water Sciences Department offers competitive assistantships to highly qualified students (applications due by January 15, 2018), and other funding opportunities are available.

Interested? Send me your unofficial transcripts, CV, and contact information for two references at maltaislandryg@ufl.edu. Instructions on how to apply to graduate school in the Soil and Water Sciences Department can be found at <http://soils.ifas.ufl.edu/academics/application.shtml>.