



USDA-CSREES 2007 National Water Quality Conference

[Evaluating nutrient and irrigation BMPs on a tree farm in south Florida](#)

Best Management Practices (BMPs) are often implemented based on 'best professional judgment' with little scientific support. This is particular true when considering combinations of BMPs, such as both nutrient and irrigation management practices. In a 4 treatment (3 replications) study, we investigated nutrient and irrigation BMPs on a tree farm in South Florida. The treatments consisted of control (grower irrigation and nitrogen (N) and phosphorus (P) fertilization), soil moisture based irrigation (15 cbar), soil moisture based irrigation (15 cbar) and 50% of grower N and P, and grower irrigation and 50% of grower N and P. Soil water was sampled within the root zone and below the root zone using soil water samplers. Soil, plant tissue, and plant growth measurements were also collected. All data were analyzed to determine significant differences considering crop production and nutrient leaching. Results indicate that environmental factors should be considered in BMP selection.

Author: Kati Migliaccio

University Affiliation: University of Florida

Co-Author(s): Bruce Schaffer, Yuncong Li, Jonathan Crane, Edward Evans, and Rafael Muñoz-Carpena