

### **Task 3 - Final Report**

Literature Review and Search of Agricultural Water Quality BMPs

Faculty Investigators: Michael D. Dukes & Wendy Graham

Research Associate Investigator: Bernard Cardenas

June 27, 2014

#### Description of Literature Search Methodology

The BMPs related peer-reviewed publications search was conducted mainly through online scientific databases. The literature searches were conducted using an assortment of keywords, which included one of the commodities investigated: Vegetables (tomato, potato, cucumber, squash, pepper, sweet corn, melon, watermelon), Agronomic Crops (peanut, field corn, cotton, sugarcane, soybean), Citrus (orange, lemon, lime, grapefruit), Fruit and Nut (blueberry, strawberry), Animal (dairy, cow-calf, cattle, beef, forage), Nurseries and Ornamentals, and Silviculture. One of these words was combined with one of the states considered on this search: Florida, Georgia, Alabama, South Carolina, or North Carolina. Finally, a concept was included in the search: best management practice, BMP, TMDL, nonpoint source, nutrient, nitrogen, nitrate, phosphorus, phosphate, fertility, fertilizer, controlled-release fertilizer, amendment, fertigation, irrigation, leaching, leachate, lysimeter, deep percolation, runoff, water quality, water quantity, wetland, or modeling.

Through the University of Florida's Library website ([www.uflib.ufl.edu](http://www.uflib.ufl.edu)), numerous databases were reached. The main databases used in this search were Web of Science and Google Scholar. Other scientific databases used included ScienceDirect, SpringerLink, and Agricola. Google Scholar was useful to locate specific articles (e.g., articles cited in the Reference section of a specific PDF) or articles that were not available through other search engines. However, Google Scholar was not very helpful with general searches as it gave too many outcomes, which not always were related to the objectives of this search. Once relevant articles were located, PDF copies were downloaded. Refworks.com was used as the bibliographic format to import the citations and to save the PDF articles.

More than 600 articles were reviewed in detail. Of those, only 463 were finally indexed and included in Deliverable 2. It is important to mention that there is a great amount of research that has been presented at conferences, meetings, symposiums, etc., and published in their respective Proceedings or Actas. However, a small amount of this research had turn into peer-reviewed papers. This is particularly true for research performed in Florida on commodities such as Citrus and Vegetables. Those non peer-reviewed papers were not collected.

#### Phase 2 Literature Review and Synthesis Scope of Work

Attached separately.