

## **Modeling the Effect of Soil Amendments on Water Balance and Water Quality**

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### **Abstract**

Non-point source water pollutants resulting from agricultural areas have been implicated as a source of water quality degradation in South Florida. The nutrients loading from agricultural and urban areas have increased nutrient concentrations, particularly phosphorus at the Everglades National Park. It is reported that nutrient enriched waters affect vegetation type and patterns. A computer model, USDA-Everglades Agro-Hydrology Model (EAHM) has been developed to evaluate the impact of agricultural practices on the crop production, water balance and the fate and transport of nutrients and pesticides. A study was conducted to evaluate the effect of soil amendments (compost) on the nutrients and pesticides retention and soil water balance. The results of the study were used to modify the EAHM. The model then was used to simulate the long term impact of composting on the fate and transport of the agricultural chemicals in South Florida farm fields.