

# IRRIGATION CONSERVATION PROGRAM EVALUATION IN ORANGE COUNTY, FLORIDA

*Bernardo Cárdenas, Michael Dukes, and Nick Taylor*

University of Florida, Gainesville, FL, USA

In Florida, the Orange County Utilities (OCU) embarked upon rebate programs for high efficiency sprinkler nozzles (HES) during 2015, and for rain sensors (RS) during 2016. The objective was to evaluate if these technologies could reduce irrigation water use in their service area. After completion of these programs, the monthly billing data of their customers was analyzed. Several assumptions were made to normalize the data. Homes were excluded from the dataset if they had incomplete data, they participated in other OCU conservation programs at the same time, or they did not use irrigation water during the analyzed period. Only data from a year before and a year after program interventions were considered, for properties that were single-family homes, and located in zip codes with a minimum of five homes participating in a specific rebate program. For the selected homes, indoor and outdoor water use were estimated. Then, the outdoor water use (considered as irrigation) from HES and RS homes was compared to homes in their same zip code (COMP), pre and post program intervention.

As an overall weighted average, the irrigation water savings by the HES homes were 17% by volume and 18% by depth compared to the COMP homes, whereas on the RS homes were 6% by volume and 7% by depth. According to the conditions in which this study was carried out, the HES demonstrated a higher outdoor water savings potential relative to RS.

**PRESENTER BIO:** Bernardo Cárdenas is a UF Research Associate, with more than 16 years of experience in water conservation projects. He also has extensive experience in irrigation efficiency with smart water application technologies in landscapes. He has been responsible of many projects in Florida involving BMPs to conserve irrigation water.