

## A “Little” Success Makes a Big Difference

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**W**ater conservation is no longer just a smart practice, it has become a necessity for Florida farmers. In southwest Florida, Carl Little has a good understanding of what conservation means for the environment and for his bottom line.

Mr. Little has a 60-acre farm in the town of Seffner, between Tampa and Lakeland. The farm is located in the Hillsborough River watershed in northern Hillsborough County and lies within the Northern Tampa Bay Water Use Caution Area (Figure 1).

Mr. Little is a second-generation farmer who grows peanuts, watermelon, and vegetables; his father was a peanut farmer in Marion County. In looking for ways to make his farm operation more efficient, Mr. Little sought assistance through the Facilitating Agricultural Resource Management Systems (FARMS) cost-share program to convert his traveling-gun crop irrigation method to a towable center-pivot system irrigation system on 32 acres of peanut production.

A traveling-gun system consists of a wheeled cart with a large sprinkler (called a "gun"), the main traveler machine with a hose reel, and an irrigation hose (Figure 2). The wheeled cart (called a gun cart) is pulled either



Figure 2

Center-pivot irrigation systems consist of several segments of pipe joined together and supported by trusses, mounted on wheeled towers with sprinklers positioned along its length (Figure 4).

by a cable or a hard irrigation hose during operation (Figure 3). Drawbacks of the traveling-gun system are that it is labor-intensive, has a relatively high cost per irrigated acre when compared to center pivots and some drip systems, and has low application efficiency.

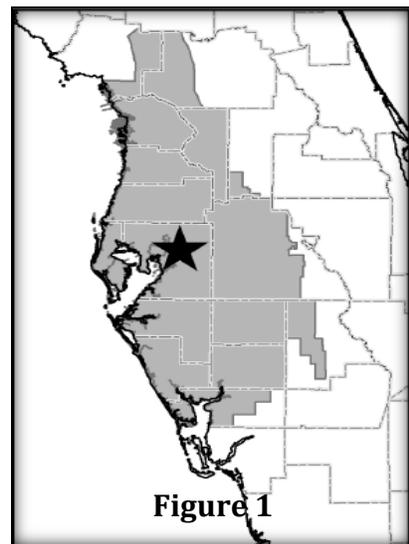


Figure 1



Figure 3

The equipment rotates around a pivot and crops are watered with sprinklers. Most center pivot systems now have drops hanging from a u-shaped pipe called a “gooseneck” attached at the top of the pipe, with sprinkler heads positioned a few feet above the crop, limiting evaporative losses and wind drift. Center-pivot irrigation systems typically uses less water and require less labor compared to many other irrigation techniques, which conserves water and reduces irrigation costs.

The FARMS Program is an agricultural best management practices (BMP) cost-share program developed by the Southwest Florida Water Management District (SWFWMD) and the Florida Department of Agriculture and Consumer Services (FDACS). The purpose of the FARMS Program is to implement agricultural BMP projects that benefit water quality, reduce Upper Floridan aquifer withdrawals and/or conserve, restore, or augment SWFWMD region’s water resources and ecology.



Figure 4

The goal of the Little farm project was to reduce Upper Floridan aquifer groundwater withdrawals of 60,900 gallons per day (gpd) through increased irrigation efficiency. The water management district initially estimated the savings at 12,180 gallons of water gpd, a 20% reduction in water consumption. Instead, through the implementation of the center pivot with a micro-sprinkler package, the project has resulted in an average savings of 32,500 gpd, a 53% reduction in water use. The traveling-gun irrigation method was pumping at approximately 75 gallons per minute, while the center-pivot system currently is pumping at approximately 17 gallons per minute. The cost of this project was \$27,806, with \$17,903 (64%) provided in cost share from the FARMS Program and the Hillsborough County Environmental Protection Commission (through the FDACS Mini-FARMS Program).

This is just one example of the types of successes and collaborative efforts helping to relieve the stress on Florida’s water resources and assure agriculture the water supply it needs to continue to produce food, fuel, and fiber for a growing population. Collaboration between a Seffner County peanut farmer, SFWMD, FDACS, and the Hillsborough County Environmental Protection Commission resulted in a “Little” success that is making a large contribution to water conservation.

For more information about this program and other water conservation efforts, please contact the Florida Department of Agriculture and Consumer Services, Office of Agricultural Water Policy at (850) 617-1700.

