

Georgia's 2018

CLEAN WATER HEROES

C.M. Stripling Irrigation Research Park

FLINT RIVER

UGA Agricultural Research Park Promotes Water Conservation

INTRODUCTION:

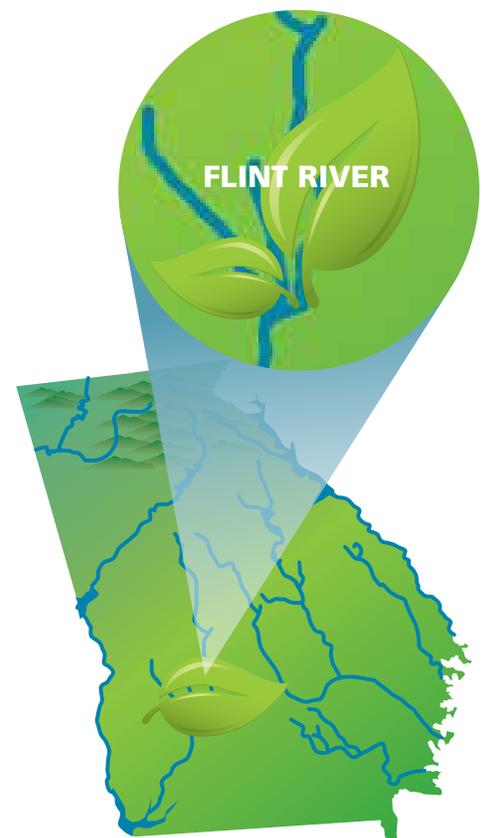
With more than 640,000 acres of irrigated cropland, the Flint River basin of southwest Georgia is the state's breadbasket with the market value of crops grown in the area estimated at more than \$2 billion. But when farmers turn on the spigots to water their crops, water levels in the Floridan aquifer and the Flint River begin to drop. In one day, farms in southwest Georgia can use as much as 584 million gallons a day—about the same amount that metro Atlanta's 15 counties use in a single day. And while metro communities are encouraging residents to fix leaks and install low flow toilets, in southwest Georgia, the C.M. Stripling Irrigation Research Park (SIRP), a unit of the University of Georgia, is doing the same with high-tech irrigation systems for farmers. Since opening in 2001, the Park has been instrumental in educating growers across the state on the importance of converting to more efficient irrigation systems that save water.

THE WATER BODY:

Perhaps the state's most unique river, the Flint courses 346 miles from metro Atlanta (a portion of it flows in a pipe beneath the runways of Hartsfield-Jackson Atlanta International Airport) to southwest Georgia where it joins the Chattahoochee to form the Apalachicola River in Florida. When the Flint arrives in southwest Georgia it interacts with the limestone of the Dougherty Plain with spectacular results. Limestone bluffs front the river and breathtakingly cold and beautiful blue hole springs rise up along its flanks to feed it. It's these springs that are the connection with the Floridan aquifer which supplies much of the river's flow...as well as much of the irrigation water used by southwest Georgia farmers. That interplay between the aquifer and the river have made the efficient use of irrigation water critical to protecting the Flint and uses downstream in Florida.

THE CLEAN:

Just west of Albany, Adam McLendon and his family farm some 9,000 acres of peanuts, soybeans and cotton, and like most farmers in southwest Georgia, the McLendons depend heavily on center-pivot irrigation systems. But on the McLendon farm, those systems have gone high tech thanks in part to SIRP.





The McLendons have begun employing Variable Rate Irrigation systems (VRI) tested and pioneered in Georgia at the Research Park near Camilla. VRI enables them to place more water on parts of their fields that need it and less on areas that don't. Used on a wide scale, the technology has the potential to save millions of gallons.

"We're saving water. There's no argument there," said McLendon. "Stripling Park has helped make VRI more understandable and more affordable. They've given us a great understanding of how we can implement it on a large scale."

Now, the Park is taking VRI to the next level. SIRP's Agriculture Water Efficiency Team (Ag WET) has embarked on a program to install soil moisture sensors at two farms in each of 13 counties across south Georgia. The soil moisture sensors used in tandem with VRI systems allow growers to tailor their irrigation rates based the amount of moisture in the ground at various locations within a center-pivot's footprint.

It's all an effort to get the technology in the hands of more growers and convert them to what SIRP superintendent Calvin Perry calls the "gospel" of conservation. In addition to educating farmers, SIRP also connects them with federal programs that provide cost assistance to install more water efficient irrigation systems.

"It's all about providing information and changing mindsets. One day all growers will likely use this technology," Perry said. "We're also working with vendors to make the systems better, faster and cheaper. It's like cruise control in your car; these technologies will someday become standard."

During the last 17 years, SIRP played a significant role in converting Georgia farmers to the use of water-saving low pressure nozzles on drop hoses on their center-pivot irrigation systems. These devices can reduce water losses by as much as 30 percent. Where once high pressure water-wasting sprinklers were the standard; now growers irrigate 93 percent of southwest Georgia's crops with the more efficient sprinkler systems.

If that example holds true for SIRP's efforts to promote even more high-tech irrigation systems, Georgia farmers should be saving lots more water in the coming years.



Top: The Stripling Irrigation Research Park has been instrumental in converting growers to water-saving low pressure irrigation nozzles. Now, 93 percent of irrigated crops in southwest Georgia are watered using these more efficient systems. Left: Stripling's Ag WET program is experimenting with soil moisture sensors in tandem with Variable Rate Irrigation systems to save water at farms across South Georgia. Above: The Park has also helped farmers across the state use water more efficiently to grow their peanut crops.



For More Information Contact:

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