

“Surge Valve Cooperative” Offers Water-Saving Tool at a Dirt-Cheap Price

With irrigation water in tight supply these days, smart growers are looking for cost-effective ways to make every drop count.

It’s time to look to the **Surge Valve Cooperative**.

The Cooperative is a new initiative of the Rio Grande Regional Water Authority (RGRWA) aimed at putting surge valves to work in the Lower Rio Grande Valley. The Authority was intrigued by the results of field demonstrations conducted by the Texas Project for Ag Water Efficiency (Texas AWE) showing that the use of surge valves in furrow irrigation can reduce water consumption by as much as 52 percent.

Texas AWE is developed and managed by the Harlingen Irrigation District (HID) with grant funds from the Texas Water Development Board.

Surge v. Furrow

Crop (Date)	Volume of Water Used/Acre (in acre-inches)		Savings with Surge
	Furrow	Surge	
Sugarcane (2005)	30.68	14.64	52%
Cotton (2005)	19.53	13.48	31%
Seed Corn (2007)	23.95	17.31	28%
Cotton (2010)	18	14	22%

Growing sugarcane in the Lower Rio Grande Valley uses some 252,000 AF of water per year, and irrigated cotton about 111,000 AF/yr. Based on Texas AWE findings, using surge valves to irrigate these crops could save around 110,000 acre-feet of water per year in the region, an amount equal to about 40 percent of current municipal demand.

The possibility of such impressive water savings is thwarted by cost. Each surge valve costs about \$2,000, making this equipment economically unfeasible for most producers in the region.

Surge Valve Co-op to the Rescue!

The RGRWA has just been awarded a WaterSMART grant from the U.S. Bureau of Reclamation that will offset the cost of surge valves for up to 32 volunteer cooperators in an extended demonstration of the technology.

Cooperators will receive up to two surge valves, enabling irrigation of about 50 acres per valve, in return for an initial payment of \$350 each. To receive the valves at this discounted price, cooperators must register for the project and attend a two to three hour training session conducted by Texas AWE staff on how to use the equipment for maximum irrigation efficiency.

Once surge valves are in operation, water use must be measured during actual irrigation. Texas A&M specialists will choose several cooperators for follow-up evaluations. Cooperators who participate in a final wrap-up meeting about field experiences, common issues, and problems will receive a \$50 rebate on each valve—bringing total valve cost down to \$300 each.

Surge valve workshops and field days will be scheduled throughout fall 2013 and early 2014, at various locals in the Rio Grande Valley. Training dates, times, and locations can be found on the websites below.

Registrations for the Surge Valve Cooperative will be taken on a first-come, first-served basis. Registration forms are available online at www.RGRWA.org and www.TexasAWE.org.

Questions? Call Heather Stock with Harlingen Irrigation District at 956-423-7015.