September 23, 2009

Engineer: Aggie Irrigation Catch Can best in the world

Un-calibrated irrigation systems can waste half their water

By: Robert Burns, 903-834-6191
Contact(s): Dr. Guy Fipps, 979-845-7454, g-fipps@tamu.edu

View All Media/Resolutions

COLLEGE STATION – Texas AgriLife Extension Service engineers claim they have the best-designed irrigation catch can in the world: The Aggie Catch Can.

"This design change is significant as it greatly reduces splash-out during sprinkler testing, thereby improving the accuracy of tests to measure the efficiency and application rates of irrigation systems," said Dr. Guy Fipps, AgriLife Extension engineer and designer of the new catch can.

It's not uncommon for irrigation systems, whether in the home lawn, professionally managed landscape or in crop production, to waste half or more of irrigation water through the season, he said.

In theory, monitoring irrigation applications is simple, Fipps said. One simply puts out containers and runs the irrigation system for a specified amount of time. Everything from tuna cans to cups are often used, but the results must be converted to inches of water applied over the area. Rulers or graduated cylinders and calculators are needed for the process, and the chance for error by non-professionals is high.

The Aggie Catch Can, however, is cone-shaped and has graduated markings in both inches and millimeters.

"Unlike tuna cans, catch volumes may be read directly without the need for rulers or graduated cylinders," Fipps said.

Other advantages to the can are that its cone shape allows it to be easily stackable with other units. Also, it comes with a stainless steel stand that is staked in the ground.

"This means it can be used on uneven or sloped sites," Fipps said.

The irrigation catch can is now available through the AgriLife online bookstore. at http://agrilifebookstore.org. A set of 12 cans with stands costs $54 plus shipping. At the bookstore, search for item number SP-368.

With water and energy costs being what they are today, irrigators can quickly pay for the cost of the cans by properly calibrating their systems, Fipps said. Also, reducing over-irrigation is vital to preserving the state's resources.

"As about 40 percent of municipal water use is for landscape irrigation, conserving water in landscapes is important if Texas is to be able to meet its future water demand," said Fipps, who is also the director of the Texas Irrigation Technology Center.

The Aggie Irrigation Catch Can was developed with support from the Rio Grande Basin Initiative.

-30-