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New Waves

Texas Water Resources Institute's E-Newsletter
Breaking news about water resources research and education at Texas universities

September 30, 2009

Engineer: Aggie Irrigation Catch Can best in the world

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, but the chance for error by non-professionals is high.

Developed with support from the Rio Grande Basin Initiative, the irrigation catch can is now available through the AgriLife online bookstore. A set of 12 cans with stands costs $54 plus shipping. In the bookstore, search for item number SP-368.

With current water and energy costs, irrigators can quickly pay for the cost of the cans by properly calibrating their systems, said Fipps who is also the director of the Texas Irrigation Technology Center.

"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.

Read the complete Ag News story.

River Systems Institute to host Land, Water, People conference

As part of its annual conference series and its Initiative for Watershed Excellence program, the River Systems Institute will host Land, Water, People 2009 on Nov. 16-18 at the San Marcos Conference Center.

With over 75 expert presenters and workshop facilitators, the conference will explore the potential to more effectively manage and protect water resources, on both a local and regional scale. The Texas Water Resources Institute is a co-sponsor of Land, Water, People 2009. To learn more, see the conference Web site.

Texas A&M School of Irrigation to hold upcoming short courses

The Texas A&M School of Irrigation will host several irrigation training short courses in upcoming months. Topics include drip irrigation, irrigation management of commercial landscapes, landscape irrigation auditing and management, and "Smart" irrigation. To view the entire course schedule, visit http://irrigation.tamu.edu/schedule.php. Continuing education credit hours are available for each course.

The School of Irrigation conducts research and educational programs supporting the Texas irrigation industry and it is administered through the Texas AgriLife Extension Service and the Irrigation Technology Center, administered through the Department of Biological and Agricultural Engineering at Texas A&M University.

October meetings to address water quality in Geronimo and Alligator Creeks

Texas AgriLife Extension Service, Guadalupe-Blanco River Authority and Texas State Soil and Water Conservation Board are inviting area residents to partner with them in addressing water quality issues in Geronimo and Alligator Creek watersheds. The groups will hold two meetings to facilitate the public involvement in developing and implementing a water quality protection plan for these watersheds, said **Nikki Dictson**, AgriLife Extension water quality program specialist.

The first meeting will be Oct. 6 at the Guadalupe-Blanco River Authority River Annex at 905 Nolan, Seguin. The second will be Oct. 8 at Landa Haus in Landa Park, 360 Aquatic Circle, New Braunfels. Sign-in and refreshments for both meetings will begin at 6:00 p.m. and presentations will start at 6:30 and continue until 8:30.

Geronimo Creek and its tributary, Alligator Creek, flow through Comal and Guadalupe counties, near New Braunfels and Seguin. They were identified for watershed protection plan development due to concerns about high levels of bacteria and unwanted nutrients.

"We are now inviting area residents and landowners to participate in solving these water quality issues by attending one of two project kick-off meetings and joining the Geronimo and Alligator Creeks Watershed Partnership," Dictson said. "The public can join us at these meetings to hear how they can participate in the upcoming planning process."

For more information on the meetings or to RSVP, contact Dictson at n-dictson@tamu.edu or 979.575.4424, or **Debbie Magin** at dmagin@gbra.org or 830.379.5822. More information on the Geronimo and Alligator Creeks Watershed Partnership can be found at http://geronimocreek.org.

Read the complete Ag News story.

NMSU hosts acequia hydrology symposium, tour in Santa Fe

New Mexico State University (NMSU) and the Rio Grande Basin Initiative will host the first Acequia Hydrology Symposium on Oct. 21 at the Santa Fe County Fair Building to report the results of research on the hydrology of traditional acequia irrigation systems. Presentations will address both technical and socio-cultural aspects of acequias along the Rio Grande.

"The main thing the research has shown is that acequias seem to have a lot of value for New Mexico operating the way they have for decades," said **Sam Fernald**, NMSU associate professor of watershed management. "We've gathered the science behind it and are finding that the systems are good."

Fernald will present a report of his research team's six-year study of the hydrology of acequia-irrigated valleys.

"We're finding that there are a lot of features in these systems that support the hydrological ecosystem. The biggest one is that the seepage from the ditches recharges the ground water and eventually returns to the river later in the season. This is actually good for the downstream water users because water comes later in the season when they need it most," he said.

Other presenters will discuss additional topics related to acequia systems' impact, including riparian areas, wildlife habitat, greenery esthetics and culture.

The symposium is open to community irrigators, Extension agents, water policy specialists, hydrologists, legislators, public land and water managers, and the general public.

It will be held from 7:30 a.m.-5 p.m. on Oct. 21, at the Santa Fe County Fair Building, 3229 Rodeo Road, Santa Fe. The symposium registration fee is $15. A tour of local acequia systems will be held from 7 a.m.-5 p.m. on Oct. 22. The tour fee is $70, and participants must register for it by Sept. 21.

For more information and to register, visit http://aces.nmsu.edu/acequiahydrology or contact **Selina Trujillo** at 505.852.4241.

Committee to celebrate 20 years of protecting groundwater

The Texas Groundwater Protection Committee (TGPC), created by the Texas Legislature in 1989, will celebrate its 20th anniversary at its Oct. 26 meeting in Austin.

The quarterly meeting, open to the public, is set for 1 p.m. on the Texas Commission on Environmental Quality's (TCEQ) campus, 12100 Park 35 Circle, Building F, Room 2210.

The committee, composed of nine state agencies and one statewide association with groundwater-related responsibilities, identifies areas where new or existing groundwater programs could be enhanced and improves coordination among agencies involved in groundwater activities. Through the years, the committee has provided a biennial report on its activities to the Texas Legislature, including recommendations for new groundwater protection programs, and has developed a comprehensive Texas Groundwater Protection Strategy program.

"In recognition of our 20th year, we will try some new approaches to increase participation in the TGPC," said TCEQ's **Cary Betz**, designated chair of the TGPC. "It is our intention to make the TGPC more relevant and proactive than ever and actively build on our accomplishments. Interested parties are

encouraged to check our Web site frequently for information updates and to contact us with concerns and ideas."

The TGPC Web site functions as a clearinghouse of groundwater information, including pesticides; water wells; septic systems; groundwater contamination and pollution prevention; water conservation; classroom applications; oil, gas, and mining issues; and Frequently Asked Questions.

Stewart inducted into ARS Hall of Fame

Dr. B.A. Stewart, director of West Texas A&M University's Institute for Dryland Agriculture and distinguished professor of agriculture, was recently inducted into the U.S. Department of Agriculture's Agricultural Research Service (ARS) Science Hall of Fame. The Hall of Fame represents the "best of the best" in agricultural research and is considered one of the most prestigious awards presented by ARS. Read the West Texas A&M news release here.

Rainwater harvesting workshops to be offered in San Antonio

The Texas AgriLife Extension Service and The Antique Rose Emporium will co-sponsor rainwater harvesting workshops in San Antonio on Oct. 26 and 27, at The Antique Rose Emporium, 7561 East Evans Rd.

The Oct. 26 workshop, which runs from 6:30-8:30 p.m., will focus on rainwater collection for the home. The Oct. 27 workshop, which will take place from 9:30 a.m.-noon, will focus on rainwater collection for use on landscapes and for wildlife.

"The first workshop will show homeowners different types of rainwater systems for capturing water and using it for potable and non-potable purposes in the home," said **Bryan Davis**, AgriLife Extension agent for natural resources in Bexar County. "The second will show how to collect and store rainwater to irrigate trees, lawns, gardens and landscapes, and to provide drinking water for wildlife."

The cost for each workshop is $5. Participants are requested to RSVP by Oct. 23 to Annette Pawelek at the AgriLife Extension office in Bexar County at 210.467.6575.

Read the complete Ag News story.

Nueces River Authority receives Gulf Guardian Award

The Gulf of Mexico Program recently announced that the Nueces River Authority (NRA) will receive a third place Gulf Guardian Award for 2009 in the education category. The award ceremony will be Oct. 29 in Biloxi, Miss., in conjunction with the Oceans `09 International Conference.

Since 2006, the NRA Education and Outreach Program for the Coastal Bend has delivered education to over 2,800 people at 52 events in Nueces, Bee, Jim Wells, and Refugio counties. Using original, hands-on teaching tools, the educational events demonstrate the importance of clean waterways for drinking water, recreation, land and animal health. The program is supported by the Clean Rivers Program and local contracts. NRA partners with the Center for Coastal Studies at Texas A&M University at Corpus Christi, Texas AgriLife Extension Service, Coastal Bend Bays and Estuary Program, Texas State Aquarium – Sea Lab, and others.

The Gulf of Mexico Program initiated the Gulf Guardian awards in 2000 to honor the businesses, community groups, individuals and agencies taking positive steps to protect and improve the Gulf. The Gulf of Mexico Program, underwritten by the U.S. Environmental Protection Agency, was established in 1988 to protect, restore and maintain the health and productivity of the Gulf's ecosystem in economically sustainable ways. For more information and a list of all of the 2009 Gulf Guardian Award winners, visit the Gulf of Mexico Program Web site.

TWDB makes water use summaries available to the public

The Texas Water Development Board (TWDB) recently posted summaries of the state's 2007 water use estimates per acre-foot for municipal and industrial entities. New to the 2007 figures is a pilot water use measure—an estimate of residential water use per capita for some of the state's cities, according to **Kevin Kluge**, team leader of the Water Use Survey.

The residential estimate of gallons per capita daily includes single family and multi-family and includes both indoor and outdoor water uses. Kluge said that it might take several years for water utilities to make sure that this water use is categorized properly. "Apartments are categorized by some utilities as multi-family residential and a commercial account by others," he said.

The TWDB conducts a mandatory annual survey of groundwater and surface water use to collect current, accurate information on quantities, sources and related water use data for municipal and industrial water uses, according the its Web site. The TWDB uses this data to develop water use estimates, summarized by geographic location and by water use category, for water resources planning. Water use is divided into municipal, (which includes residential, commercial and institutional water use) manufacturing, steam electric power, mining, irrigation and livestock water uses.

The historical water use estimates are revised as additional data and corrections are made available to the TWDB.

Information may be downloaded in Excel spreadsheets by state and regional totals, by county and by city from the Water Use Survey Summary Estimates Web site.

New Publications/Papers

An Analysis of the Economic and Financial Life-Cycle Costs of Reverse-Osmosis Desalination in South Texas: A Case Study of the Southmost Facility, Allen W. Sturdivant, M. Edward Rister, Callie S. Rogers, Ronald D. Lacewell, Joseph W. "Bill" Norris, Jesus Leal, Jose Garza, Judy Adams, TR 295, 2009

Desalination provides a supply alternative for potable water for many communities, along with possible defenses against security threats potentially affecting clean water supplies. The economic and financial life-cycle costs associated with building and operating the Southmost desalination facility (near Brownsville, TX) in South Texas are investigated using the spreadsheet model DESAL ECONOMICS©.

TWRI Water Resources Training Courses

SWAT for Beginners	Nov. 2-3, 2009

Advanced Data Processing for ArcSWAT	Nov. 4, 2009
SWAT for Advanced Users	Nov. 5-6, 2009
Key EPA Internet Tools Course	Nov. 19, 2009

New Waves is an e-mail newsletter of Texas Water Resources Institute, part of Texas AgriLife Research, the Texas AgriLife Extension Service and the College of Agriculture and Life Sciences at Texas A&M University. **New Waves** publishes timely information about water resources news, results of projects and programs, and new water-related research projects, publications, papers and faculty, at universities in Texas.

If you have information for possible inclusion in **New Waves** please e-mail **Leslie Jordan** at lhjordan@ag.tamu.edu, or call 979.862.7139, and include your contact information. All submissions may be edited for grammar and style.

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