



Breaking news about water resources research and education at Texas universities

February 6, 2007

Agriculture staff, research team recognized with awards

A TWRI project and several TWRI and Texas A&M Agriculture staff who work closely with TWRI were recently recognized with several prestigious awards for contributions to the workplace, research and education. The Rio Grande Basin Initiative (RGBI) Research Team, **Patricia "Patt" Junek**, **Robert "Bob" Whitney** and **Dr. C. Allan Jones** were awarded Vice Chancellor's Awards in Excellence. **Dr. Bill Harris** is the recipient of Epsilon Sigma Phi Retiree Service Award.

RGBI's research team received the Vice Chancellor's Awards in Excellence: Award in Research. **Drs. Elsa Murano**, vice chancellor and dean of Agriculture and Life Sciences, and director, Texas Agricultural Experiment Station, and **Bill Dugas**, associate director for operations, Texas Agricultural Experiment Station, presented **Drs. Bob Wiedenfeld, Edward Rister, Juan Enciso, Zhuping Sheng, Ari Michelsen** and **Giovanni Piccinni** with the honor based on their team research, *Efficient Irrigation for Water Conservation in the Rio Grande Basin*. Research efforts focus on a wide variety of topics including economics, GIS-based water management strategies, water resource planning and management, alternative water management policies, new irrigation methods and technologies and groundwater and surface water assessments. Water is a vital resource in the Rio Grande Basin and the work of these researchers impacts a wide variety of people who live in the Basin and who depend on this research for crop irrigation scheduling and new and innovative water saving methods and technologies to help protect and conserve water resources.

Dr. Murano presented **Patricia "Patt" Junek**, of TAMU Agriculture's Contracts and Grants Office, with the recipient of the Vice Chancellor's Awards in Excellence Program: Award for Professional Services, Special Services. TWRI nominated her for her work in helping the institute in obtaining grants. Junek serves as a critical element in acquiring grants, working with tight deadlines and under high stress levels while managing to guide others in the myriad elements of grant writing through workshops and individual direction. Recognized for her calm demeanor and vast knowledge, Junek's efforts have allowed TWRI to successfully obtain a significant amount of external funding.

Robert "Bob" Whitney received the Vice Chancellor's Award in Excellence: Award Extension Education from **Dr. Murano** and **Dr. Margaret Hale**, executive associate director, Texas Cooperative Extension. Whitney has served with Extension for 24 years, the past 15 of which were with Comanche County working with agriculture, natural resources and the community. He worked to develop the Dairy Outreach Program Area, an instructional endeavor that provides education about environmental regulations such as lagoon management and monitoring, waste applications to fields, nutrient content and beneficial use of wastes, reduction in feed phosphorus levels and various permitting requirements. Additionally, Whitney was crucial in developing the Agricultural Producer Certification Option in Comanche County.

Dr. Murano presented **Dr. C. Allan Jones**, director of TWRI, with the Vice Chancellor's Awards in Excellence: Award for Administration for his expertise and commitment to TWRI and as the Assistant Vice Chancellor of Agriculture and Life Sciences and as Associate Director of the Texas Agricultural Experiment Station. Respected both state and nationwide, Jones grew TWRI's three projects and \$300,000 budget in 2001 to today's 70 projects with over \$13.5 million in funding. In 2006, Gov. Rick Perry appointed Dr. Jones to coordinate the Trinity River Basin Environmental Restoration Initiative.

Dr. Bill Harris, associate director of TWRI, received the Epsilon Sigma Phi Retiree Service Award, an honor that recognizes a retired Extension professional who continues to contribute to Extension ventures and volunteers in community activities. Harris has served as soil specialist, soil and water specialist, project group coordinator and associate director of Agriculture and Natural Resources and was integral in establishing several cooperative and collaborative programs with federal and state agencies while with Extension. Since Harris retired from Extension in 2001 and joined TWRI, he has been active in acquiring nearly \$14 million and eight major projects for TWRI. Dr. Harris received the award from **Sandra K. Fry**, Chapter President, Epsilon Sigma Phi; and **Dr. Ed Smith**, director, Texas Cooperative Extension.

Rio Grande Basin Initiative wins national award

RGBI was recognized with the U.S. Department of Agriculture Cooperative State Research, Education and Extension Service National Water Program 2007 Award in the Outstanding Integrated Activities for Water Resources category. The award was presented to Drs. Allan Jones and Bill Harris of TWRI and Craig Runyan of NMSU at the USDA–CSREES National Water Conference in Savannah, GA, Jan. 30, 2007.

The selected recipients accepted these awards on behalf of all RGBI participants and collaborators. RGBI is a winner because of the hard work, dedication and collaboration of all participants involved in the project working with each other and other universities, agencies and individuals to make this project a success.

TWRI scholar wins Ag Conference competition

Ronnie Schnell, a 2006-2007 TWRI Mills Scholarship recipient, was awarded first place in the graduate student poster competition at the 2007 Texas A&M Agriculture Conference for his poster "Effects of Composted Municipal Biosolids and Nitrogen on Turfgrass Establishment and Sod Harvest."

Schnell's research, funded by a TWRI Mills Scholarship, the International Turf Producers Foundation and the Texas Turfgrass Research, Education and Extension Endowment, demonstrated that cycling composted biosolids through turfgrass sod can provide organic carbon and nutrients, enhance turfgrass growth, reduce soil bulk density and improve soil water retention. Reduced sod weight and increased water content will aid in transport of sod as well as conservation of water nutrients on urban soils after transplanting. Results also demonstrated that a large percentage of applied nutrients could be exported with sod harvest. Cycling of composted biosolids through sod production effectively uses urban waste streams as a resource and contributes to sustainable development and management of agricultural and urban landscapes in Texas.



Schnell's award-winning poster was co-authored by **Drs. D.M. Vietor** and **R.H. White** of the Soil and Crop Sciences Department and **C.L. Munster** of the Biological and Agricultural Engineering Department at Texas A&M University. More than 50 students submitted posters for the student research poster competition.

BAEN Department offers Belgium Study Abroad program

Undergraduate students who are studying soil, water and the environment and interested in studying abroad are encouraged to apply to the Soil, Water and Environmental Study Abroad Program in Leuven, Belgium for Summer II 2007.

Texas A&M students on the program receive up to six hours of credit through three courses taught by A&M professors including Soil and Water Management (AGSM 335), Technology for Environmental and Natural Resources Engineering (AGSM 337) and Principles of Environmental Hydrology (BAEN 460). The study abroad is offered for the second summer session (July 4 to August 9) and is available both to engineering and non-engineering students.

Courses are taught at the Katholieke University of Leuven on Tuesday through Thursday and include field trips to unique European water and wastewater projects. Since Leuven is only 20 miles from Brussels and centrally located in Europe bordering the Netherlands, France, Germany and Luxemburg, the four-day weekends allow for ample travel.

The cost of the program is approximately \$2000 and there are two scholarships available through the Study Abroad office. The online application for the Belgium Study Abroad program is located at: <http://studyabroad.tamu.edu/programs/belgium.asp>.

Interested students should contact advising professors **Dr. Clyde Munster** at C-Munster@tamu.edu or **Dr. Ann Kenimer** at A-Kenimer@tamu.edu, or the study abroad advisor Orië Varner at ovarner@ipomail.tamu.edu.

USGS announces RFPs for faculty grants

The U.S. Geological Survey (USGS) in cooperation with the National Institutes for Water Resources announces request for proposals in not only the physical dimensions of water supply, demand and availability, but also quality trends in raw water supplies, the role of economics and institutions in water supply and demand, institutional arrangements for tracking and reporting water supply and availability, and institutional arrangements for coping with extreme hydrologic conditions.

Any investigator at a Texas institution of higher learning is eligible to apply for a grant through TWRI. Proposals involving substantial collaboration between USGS and university scientists are encouraged. Proposed projects may be from 1 to 3 years in duration and may request up to \$250,000 in federal funds. Proposals require a 50:50 match; thus, successful applicants must match each dollar of the federal grant with one dollar from non-federal sources.

Proposals must be filed on the Internet at <https://niwr.net/> by **Feb. 16, 2007**. For more information, contact **Cecilia Wagner** at CAWagner@ag.tamu.edu or 979.458.1138.

Food Protein R&D Center to hold annual membrane and separations short course

The Food Protein Research and Development Center of the Texas Engineering Experiment Station will hold the 17th Annual Membrane and Separations Technologies Practical Short Course April 1- 5 at Texas A&M University. The short course will cover topics in food and beverages; chemicals; oil and gas; pharmaceuticals; biotechnology; water and wastewater; environment; paper and pulp; power generation; brewing and wine; and desalination, with daily pilot plant demonstrations. Texas A&M faculty and staff are eligible for discounted registration.

For more information or to register, visit <http://www.tamu.edu/separations> or contact **Carl Vavra** at cjvavra@tamu.edu or 979.845.2758.

Nutrient loss database developed

Scientists with the USDA–Agricultural Research Service (USDA–ARS) recently developed the MANAGE (Measured Annual Nutrient loads from AGricultural Environments) database, which contains measured data from field-scale nutrient loss studies conducted in the United States.

Drs. Daren Harmel, Cole Green and Rick Haney of the USDA–ARS Grassland Soil and Water Research Laboratory in Temple, TX, worked with **Steve Potter** and **Pamela Casebolt** of the Texas Agricultural Experiment Station and **Dr. Ken Rickhow** of Duke University to develop the database. The Texas State Soil and Water Conservation Board and USDA–ARS funded the project.

According to the developers, the database is needed because of the growing demand for land use-specific nutrient export information to inform regulatory and educational programs and to support water quality modeling.

The publicly available database provides:

- measured annual N and P load data, corresponding watershed characteristics and land management information from numerous field-scale studies,
- readily accessible, easily queried information to support water quality management, modeling and future research design, and
- a platform allowing user input of additional project-specific data.

In 2006, the project members published an article about the MANAGE database in the Journal of American Water Resources Association 42(5):1163-1178. This publication along with original and updated versions of the database is available at <http://www.ars.usda.gov/spa/manage-nutrient>.

High Plains may see profitable crops this spring with irrigation planning

Irrigation producers are planning a profitable spring crop season this year in part due to the availability of highly-efficient center-pivot and sub-surface drip irrigation systems. According to Texas Cooperative Extension specialists at the High Plains Irrigation Conference and Trade Show in January, efficient irrigation is the direct result of planning and working with available water resources.

Leon New, an Extension irrigation specialist, said it is best to manage irrigation based on the water available per acre capabilities of wells on a property. New said it is crucial to manage irrigation water, rainfall and soil moisture to maximize crop yields.

Dr. Steve Amosson, Extension economist, said some producers should consider partially irrigating all crops instead of fully irrigating some crops and letting the rest grow under dryland conditions. Amosson said it is most effective to partially irrigate all crops, emphasizing initial water application as the key to conservative irrigation techniques.

With proper management and irrigation techniques, both Amosson and New agree that 2007 will be a high-yielding year for crops.

To read the complete AgNews story, go to <http://agnews.tamu.edu/dailynews/stories/AGEN/Jan1907a.htm>.

Environmental services conference set for February

Market-based trading of environmental services will be the topic of "Ecosystem Service Markets: Everyone's Business," a conference Feb. 27 in Houston that will include presentations by top environmental attorneys, researchers and analysts.

The conference aims to help society find practical ways, through marketplace incentives, to protect ecosystems. Healthy ecosystems are economically important because wetlands purify water and assimilate waters; estuaries mitigate the impact of storms and floods; and forests provide timber and fiber, said Texas Forest Service Director James B. Hull.

Sponsored by Texas Forest Service, USDA Forest Service, Texas A&M Institute of Renewable Natural Resources, Greater Houston Partnership, Houston Advanced Research Center and Conservation Capital, Ltd., the conference will be held at The Westin Galleria Hotel in Houston.

To view the complete story, visit <http://agnews.tamu.edu>. For additional information on the conference and to register, visit <http://tfsweb.tamu.edu/ecoserv>.

NWRI to award fellowships

The National Water Research Institute (NWRI) has established the Ronald B. Linsky Fellowship to support an outstanding graduate student's research in water sciences. Any graduate student developing water-related research at a U.S. university during the 2007-2008 school year is eligible to apply for the two-year, \$20,000-a-year award.

NWRI additionally offers fellowship awards for students conducting research in the area of water resources and treatment, including three or four NWRI fellowships of up to \$10,000 a year for up to three years with a focus on creating new sources of water through research and technology and to protect freshwater and marine environments. One NWRI-MWH Fellowship for Advanced Water/Wastewater Treatment technologies is available at \$10,000 a year for two years and focuses on the development of novel and innovative advanced water and wastewater treatment, disinfection or oxidation technologies.

The deadline to apply for fellowships is March 1. For additional information, including application procedures, visit <http://www.nwri-usa.org/fellowship>.

New Projects

Environmental Management of Grazing Lands

This project will assist with development and delivery of technical information and support to ranchers on protection and enhancement of the functions and values of grasslands. Working with the *Lone Star Healthy Stream* project, these projects will develop and deliver current information to landowners on production and environmental management of grazing lands and their associated watersheds to address water quality and other concerns in Texas.

Principal Collaborators: Texas State Soil and Water Conservation Board, USDA–Natural Resources Conservation Service, Texas Water Resources Institute, Texas Cooperative Extension, Texas Agricultural Experiment Station, Texas A&M Department of Rangeland Ecology & Management, USDA–Agricultural Research Service, Welder Wildlife Refuge

Funding Agency: Texas State Soil and Water Conservation Board, USDA–Natural Resources Conservation Service

Watershed Protection Plan Development for Buck Creek

This project will continue the work of the *Bacterial Monitoring for the Buck Creek Watershed* project. Working together, project members will (1) identify the specific sources of bacteria, (2) evaluate potential management alternatives for restoring the waterbody and educate landowners on best management practices, and (3) develop a watershed protection plan to restore the waterbody through a stakeholder driven process.

Principal Collaborators: Texas State Soil and Water Conservation Board, Texas Water Resources Institute, Texas Agricultural Experiment Station, Texas Cooperative Extension, Hall-Childress, Donley and Salt Fork Soil and Water Conservation Districts, Red River Authority, U.S. Environmental Protection Agency

Funding Agency: Texas State Soil and Water Conservation Board, U.S. Environmental Protection Agency

New Publications/ Papers

The following TWRI Technical Reports can be downloaded at <http://twri.tamu.edu/reports.php>.

"Influence of Tributaries on Salinity of Amistad International Reservoir," **S. Miyamoto, Fasong Yuan and Shilpa Anand**. TWRI Technical Report 292.

"The Development of a Coordinated Database for Water Resources and Flow Model in the Paso Del Norte Watershed," **Zhuping Sheng, Sue Tillery, J. Phillip King, Bobby Creel, Christopher Brown, Ari Michelsen, Raghavan Srinivasan and Alfredo Granados**. TWRI Technical Report 297.

"Water Balance, Salt Loading, and Salinity Control Options of Red Bluff Reservoir, Texas," **S. Miyamoto, Fasong Yuan and Shilpa Anand**. TWRI Technical Report 298.

"Expected Economic Benefits of the El Morillo Drain," **Ronald D. Lacewell, M. Edward Rister, Allen W. Sturdivant, Megan DuBois, Callie Rogers and Emily Seawright**. TWRI Technical Report 299.

The following publications are available from the Texas Cooperative Extension Bookstore.

"Irrigation Monitoring with Soil Water Sensors," **Juan Enciso, Dana Porter** and **Xavier Peries**, a Texas Cooperative Extension Publication. To read the publication, visit <http://tcebookstore.org/pubinfo.cfm?pubid=2411>.

"Rainwater Harvesting: Soil Storage and Infiltration," **Justin Mechell** and **Bruce J. Lesikar**, a Texas Cooperative Extension Publication. To read the publication, visit <http://tcebookstore.org/pubinfo.cfm?pubid=2397>.

"Technologies for Reducing Nutrients in Dairy Effluent," **Saqib Mukhtar, Kevin Wagner** and **Lucas Gregory**, a Texas Cooperative Extension Publication. To read the publication, visit <http://tcebookstore.org/pubinfo.cfm?pubid=2412>.

"Rainwater Harvesting: Rain Gardens," **Justin Mechell** and **Bruce J. Lesikar**, a Texas Cooperative Extension Publication. To read the publication, visit <http://tcebookstore.org/pubinfo.cfm?pubid=2396>.

"On-Site Wastewater Treatment Systems: Ultraviolet Light Disinfection," **Bruce J. Lesikar**, a Texas Cooperative Extension Publication. To read the publication, visit <http://tcebookstore.org/pubinfo.cfm?pubid=2353>.

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