

2005-2006  
RGUI PUBLICATIONS LIST

EXTENSION

**Task 1 Extension**

Barroso, M., & Leigh, E. (2005, May). *Map of Engleman Irrigation District* (detailing farm lots, roads, pump locations, labeling, and map formatting). Texas Water Resources Institute, Irrigation Technology Center.

Barroso, M., & Leigh, E. (2005, June). *Map of Progresso Irrigation District* (detailing farm lots, roads, pump locations, labeling, and map formatting). Texas Water Resources Institute, Irrigation Technology Center.

Barroso, M., & Leigh, E. (2005, July). *Detailed map of Los Fresnos Irrigation District* (detailing farm lots, roads, pump locations, labeling, and map formatting). Texas Water Resources Institute, Irrigation Technology Center.

Bawazir, B., Samani, Z., Bleiweiss, M., & Skaggs, R. (2005, April). *Measuring Evapotranspiration in Agricultural and Riparian Vegetation*. Poster presented at the 4<sup>th</sup> Annual Rio Grande Basin Initiatives Conference, Alpine, TX.

Enciso, J., Wiedenfeld, B., Fipps, G. (2005, March). *Irrigation of Sugarcane in Texas* (B-6156). Texas Cooperative Extension.

Fipps, G. (2005, May). *Potential Water Savings in Irrigated Agriculture for the Rio Grande Planning Region (Region M), 2005 Update*. Final Report submitted to NRS Engineering, Inc. for the Region M Water Planning Group, 37 pp, 34 tables, 4 maps, 11 charts.

Henry, M., Fipps, G., & Leigh, E. (2005, March). *Relationships between Seepage Loss Rates and Canal Condition Parameters for the Rapid Assessment Tool (RAT)*. Paper published in the proceedings and presented at the Third International Conference on Irrigation and Drainage (USCID). San Diego, CA.

Huang, Y., Turan, B., & Fipps, G. (2005, October). Canal operation automated in Lower Rio Grande Valley, Texas. *RESOURCE*, American Society of Agricultural Engineers (ASAE), 12 (8): 8-9

Karimov, A., & Leigh, E. (March 2006). *Map of Bayview Irrigation District* (detailing farm lots, roads, pump locations, labeling, and map formatting). Texas Water Resources Institute, Irrigation Technology Center.

Lacewell, R.D., Sturdivant, A.W., Michelsen, A.M., Rister, M.E., & Sheng, Z. (2005, July). Estimated Benefits from Restoration of IBWC Rio Grande Flood-Control Projects. Proceedings of 'River and Lake Restoration: Changing Landscapes,' University Council on Water Resources Annual Meeting. Portland, ME.

Leigh, E., & Fipps, G. (2005, April). *Use of Geographical Information Systems (GIS) in Defining Municipal Water Supply Networks*. Paper published in the proceedings and presented at the Third International Conference on Irrigation and Drainage. San Diego, CA.

Leigh, E., & Fipps, G. (2006, February). *Ponding Test Results, Seepage and Total Losses, Lateral A, Hidalgo County Irrigation District No. 2*. Texas Water Resources Institute, Irrigation Technology Center.

Leigh, E., & Fipps, G. (2006, February). *Pipeline Seepage Loss Test Results, Northeast Main Pipeline, United Irrigation District*. Texas Water Resources Institute, Irrigation Technology Center.

Leigh, E., Fipps, G., Huang, Y., & Karimov, A. (2006, February). *Seepage Loss Measurement and Testing Manual*. Texas Water Resources Institute, Irrigation Technology Center.

Nazarov, A., Huang, Y., Karimov, A., Fipps, G., & Leigh, E. (2006, March). *Canal Automation Equipment, Design and Management Guideline*. Texas Water Resources Institute, Irrigation Technology Center.

Leigh, E., Fipps, G., Flahive, D., & Karimov, A. (2005, November). *No. 3, A NEW IDEA, Newsletter of the Irrigation District Engineering and Assistance Program*. Texas Water Resources Institute, Irrigation Technology Center.

Nazarov, A., Karimov, A., & Fipps, G. (2005, March). *Zarafshan Water District Improvement Project in Uzbekistan*. Paper published in the proceedings and presented at the Third International Conference on Irrigation and Drainage (USCID). San Diego, CA.

Samani, Z., Magallanez, H., & Skaggs, R. (2005, April). *A Simple Flow Measuring Device for Farms*. Water Task Force Report #3, New Mexico State University.

Samani, Z., & Skaggs, R.K. (2005, April). *Irrigation Practices vs. Farm Size: Data from the Elephant Butte Irrigation District*. Water Task Force Report #4, New Mexico State University.

Samani, Z., Bleiweiss, M., Nolin, S., & Skaggs, R. (2005, March). Regional ET Estimation from Satellites. In *Water District Management and Governance*, Proceedings of the Third International Conference on Irrigation and Drainage, United States Committee on Irrigation and Drainage, pp. 613-619. ISBN 1-887903-18-6.

Samani, Z., Bleiweiss, M., Skaggs, R., & Sanderson, R. (2005, March). Calculating Pecan Water Use by Remote Sensing. In *39<sup>th</sup> Annual Western Pecan Conference Proceedings*. NMSU Cooperative Extension Service and the Western Pecan Growers, pp. 51-57.

Samani, Z., & Skaggs, R. (2005, March). *Calculating Pecan Water Use by Remote Sensing*. A presentation to the 38<sup>th</sup> Annual Western Pecan Growers Association Conference, Las Cruces, NM.

Samani, Z., Bleiweiss, M., Skaggs, R., & Sanderson, R. (2005, April). *Regional ET Estimation from Satellites*. Poster presented at the European Geosciences Union General Assembly 2005, Vienna, Austria.

Sheng, Z. Sturdivant, A.W, Michelsen, A.M., & Lacewell, R.D. (2005, December). Rapid Economic Assessment of Flood-Control Failure Along the Rio Grande: A Case Study. *International Journal of Water Resources Development*. Special Issue – Vol No. 21, Issue 4.

Skaggs, R., & Samani, Z. (2005, April). *Comparing Crop Evapotranspiration and Irrigation Practices in New Mexico's Elephant Butte Irrigation District*. Poster presented at the 4<sup>th</sup> Annual Rio Grande Basin Initiatives Conference, Alpine, TX.

Skaggs, R., & Samani, Z. (2005, March). Farm Size, Irrigation Practices, and On-Farm Irrigation Efficiency in New Mexico's Elephant Butte Irrigation District. In *Water District Management and Governance*, Proceedings of the Third International Conference on Irrigation and Drainage, United States Committee on Irrigation and Drainage, pp. 489-498. ISBN 1-887903-18-6.

Skaggs, R., & Samani, Z. (2005, April). *Farm Size, Irrigation Practices, and On-Farm Irrigation Efficiency in New Mexico's Elephant Butte Irrigation District*. A presentation to the Third International Conference on Irrigation and Drainage: Water District Management and Governance, United States Committee on Irrigation and Drainage, San Diego, CA.

Sturdivant, A.W., Rister, M.E., & Lacewell, R.D. (2006, January). *Alternative Approaches for Determining the Value of Water*. Workshop for the Water Rights Task Force of the Lower Rio Grande Valley. Weslaco, TX. Invited.

Sturdivant, A.W., Rister, M.E., & Lacewell, R.D. (2006, January). *The Value of Water, the Costs of Delivery, the Interaction of Rates, and Their Relevance to LRGV*. Members of the Lower Rio Grande Valley Water District Manager's Association and Representatives from Various Municipal Water Suppliers. Weslaco, TX. Invited.

Sturdivant, A.W., Rister, M.E., Lacewell, R.D., & Ribera, L.A. (2005, December). *The Value of Water, the Interaction of Rates, and Their Relevance to LRGVWDMA - II*. Workshop for the Lower Rio Grande Valley Water District Manager's Association. Weslaco, TX. Invited.

Sturdivant, A.W., Rister, M.E., & Lacewell, R.D. (2005, December). *Validating the Estimated Cost of Saving Water Through Infrastructure Rehabilitation in the Texas Lower Rio Grande Valley – A Case Study Using Actual Construction Costs for the Wisconsin Pipeline Project, Hidalgo County Irrigation District No. 2 (San Juan)*. Texas Water Resources Institute. SR 2005-03. College Station, TX.

Sturdivant, A.W. (2005, December). *Costs of Delivering Water in the Lower Rio Grande Valley – Survey Results for the LRGVWDMA*. Monthly meeting of the Lower Rio Grande Valley Water District Manager's Association. Edinburg, TX. Invited.

Sturdivant, A.W., Rister, M.E., Lacewell, R.D., & Ribera, L.A. (2005, November). *The Value of Water, the Interaction of Rates, and Their Relevance to LRGVWDMA*. Workshop for the Lower Rio Grande Valley Water District Manager's Association. Weslaco, TX. Invited.

Turan, B., Fipps, G., Leigh, E., & Nazarov, A. (2005, October). *Demonstration of Gate Control with SCADA Systems in Lower Rio Grande Valley of Texas*. Published in the Proceedings of the 2005 USCID Water Management Conference on SCADA and Related Technologies for Irrigation District Modernization. Vancouver, WA.

### **Task 3 Extension**

Fipps, G., & Leigh, E. (2005, October). Development of the Irrigation Conveyance Evaluation Program. *Proceedings of the Australian National Committee on Irrigation and Drainage Annual Conference 2005*, Mildura, Victoria, Australia. Published by the Australian National Committee on Irrigation and Drainage.

Wolfe, C.D., Stubbs, M.J., Rister, M.E., Sturdivant, A.W., & Lacewell, R.D. (2006, February). *An Overview of the Operational Characteristics of Selected Irrigation Districts in the Texas Lower Rio Grande Valley: Delta Lake Irrigation District*. Texas Water Resources Institute. TR-290. College Station, TX.

Wolfe, C.D., Stubbs, M.J., Rister, M.E., Sturdivant, A.W., & Lacewell, R.D. (2006, January). *An Overview of the Operational Characteristics of Selected Irrigation Districts in the Texas Lower Rio Grande Valley: Harlingen Irrigation District Cameron County No. 1*. Texas Water Resources Institute. TR-270. College Station, TX.

### **Task 4 Extension**

Assadian N.W., Di Giovanni, G.D., Enciso, J., Iglesias, J., & Lindemann, W. (2005). The Transport of Waterborne Solutes and Bacteriophage in Soil Subirrigated with a Wastewater Blend. *Agriculture, Ecosystems & Environment* Volume 111, Issues 1-4, Pages 279-291.

Enciso J.M., Colaizzi, P.D., & Multer, W.L. (2005). Economic Analysis of Subsurface Drip Irrigation Lateral Spacing and Installation Depth for Cotton. *Transactions of the American Society of Agricultural Engineers* 48(1):197-204.

Enciso, J.M., & Wiedenfeld, B. (2005, July). Irrigation Guidelines Based on Historical Weather Data in the Lower Rio Grande Valley of Texas. *Agricultural Water Management*, Volume 76, Issue 1, Pages 1-7.

Enciso, J. & Porter, D. (2005). *Basics of Microirrigation* (TCE Publication B-6160). Texas Cooperative Extension. 16 pages.

Enciso J., Jifon, J., & Wiedenfeld, B. (2005, July). *Subsurface Drip Irrigation of Onions: Effects of Emitter Spacing and Drip Depth on Yield*. Presented at the 2005 American Society of Agricultural Engineers (ASAE) Annual International Meeting, ASAE Paper 05-2242. Tampa, FL.

Fernald, A., Guldan, S., & Ochoa, C. (2005, August). *Plumbing the links between irrigation seepage, shallow groundwater, and river flow*. Alcalde Field Day, Alcalde, NM.

Fernald, A.G. (2005, July). *The Role of Traditional Acequia Irrigation Systems in Maintaining Floodplain Hydrologic Functions*. River and Lake Restoration: Changing Landscapes; The University Council on Water Resources Annual Conference. Portland, ME.

Fernald, A., & Guldan, S. (2005, April). *Hydrologic budget impacts of seepage losses from flood irrigation*. Irrigation Efficiency Project Task 4 Water Quality Technical Group. Rio Grande Basin Initiative Annual Conference. Alpine, TX.

Fernald, A.G. (2005, April). *Hydrological and Ecological Functions of Irrigated Floodplain Agriculture*. New Mexico Agriculture Keys to Survival: A Conference for Key Leaders, Farmers, and Ranchers, Socorro, NM.

Fernald, A.G. (2005, March). *El Rio Grande en New Mexico y las interacciones entre aguas superficiales y aguas subterráneas*. El Bicentenario de Ciencia y Tecnología: Uso y Tratamiento del Agua, Chillan, Chile.

Fernald, A.G. (2005, January). *Watershed hydrology*. NMSU All Extension Conference, Las Cruces, NM.

Gerik, T.J., Piccinni, G., Steglich, E.M., Stichler, C., Williams, J., Enciso, J., Stapper, J., Perez, E., Byrom, E., Harman, W., Francis, L., & Greiner, J. (2005, November). Using crop simulation and crop evapotranspiration for irrigation management in South Texas. *Proceedings of the 2005 American Society of Agronomy-Crop Science Society of America-Soil Science Society of America International Annual Meetings*, Salt Lake City, UT.

Harman, W., Gerik, T., Magre, M., & Steglich, E. (2005, May). *Irrigation yield response of crops in the Lower Rio Grande Valley of Texas*. Blackland Research & Extension Center Report No. 2005-5.

Nelson, S.D., Uckoo, R., Enciso, J., & Shantidas, K.J. (2005, November). *On-Farm Water Conservation Strategies on South Texas Citrus Production*. American Society of Agronomy-Crop Science Society of America-Soil Science Society of America International Annual Meetings. Salt Lake City, UT.

Ochoa, C., Fernald, A., & Guldan, S. (2005, August). *Movement of flood irrigation seepage into soil and shallow groundwater*. Advances in Hydrology: Methods and Instruments; New Mexico Water Resource Research Institute Technical Symposium. Socorro, NM.

Uckoo, R., Nelson, S.D., & Enciso, J. (2005, November). *Management Strategies for Irrigation Use Efficiency in Grapefruit Production*. TAMUS Pathways to the Doctorate Symposium. Kingsville, TX.

Wiedenfeld, B., Enciso, J., & Jifon, J. (2005, November). *Irrigation and Nitrogen Application Effects on Sugarcane Production in the Lower Rio Grande Valley of Texas*. American Society of Agronomy-Crop Science Society of America-Soil Science Society of America International Annual Meetings. Salt Lake City, UT.

## **Task 5 Extension**

Leinauer, B. (2005, April). Wetting agent study IV: New Mexico. *Golf Course Management*. Vol. 73, No. 4, p. 62-64.

Leinauer, B. (2005, January). *Installation of Subsurface Drip Irrigation Systems in Turf*. Workshop Landscape, Vegetable Garden and Olla Drip Irrigation, 2005 All Extension Conference, Las Cruces Hilton.

Leinauer, B. (2005, January). *Subsurface Irrigation for the Golf Course*. 43<sup>rd</sup> Annual Nebraska Turfgrass Conference and Trade Show. Nebraska Turfgrass Association. Omaha, NE.

Leinauer, B. (2005, January). *Subsurface Irrigation for Sports Turf*. 43<sup>rd</sup> Annual Nebraska Turfgrass Conference and Trade Show. Nebraska Turfgrass Association. Omaha, NE.

Leinauer, B. (2005, April). *Effect of Irrigation Type and Root Zone Material on Irrigation Efficiency and Turfgrass Quality in the Southwest*. Joint Rio Grande Basin Initiatives Annual Conference. Sul Ross State University, Alpine, TX.

Leinauer, B. (2005, July). *Turfgrass Research and Extension Program at New Mexico State University*. NMSU Academic Field Day, Leyendecker and Fabian Garcia Plant Science Research Centers, Las Cruces, NM.

Lesikar, B., Melton, R., Smith, D., & O'Neill, C. (2005, October). *On-Site Wastewater Treatment Systems: Graywater* (TCE Fact Sheet B-6176). Texas Cooperative Extension.

Silvy, V., Kaiser, R., & Lesikar, B. (2005). *Views from the River Front, Rio Grande Decision Makers Rank Water Conservation Strategies* (TCE Publication B-6180). Texas Cooperative Extension.

Silvy, V., Kaiser, R., & Lesikar, B. (2005, February). *Preference and Feasibility of Urban Water Conservation Strategies in the Rio Grande Basin*. Paper presented at Rainwater Harvesting Conference, Edinburg, TX.

Silvy, V., Kaiser, R., Lesikar, B., & Runyan, C. (2005, September). *Views from the River Front, Rio Grande Decision Makers Rank Water Conservation Strategies*. Poster presented at the Managing Landscapes and Watersheds for Water Resources Summit in Santa Fe, NM.

Silvy, V., Kaiser, R., & Lesikar, B. (2006, February). *Rio Grande Decision Makers Rank Barriers to Water Conservation Strategies*. Paper presented at USDA-Cooperative State Research, Education and Extension Service National Water Conference, San Antonio, TX.

Silvy, V., Kaiser, R., & Lesikar, B. (forthcoming 2006, April). *Rio Grande Decision Makers Rank Barriers to Water Conservation Strategies*. Paper to be presented at Texas Water 2006, American Water Works Association, Austin, TX.

Storz, B., Silvy, V., & Lesikar, B. (2005, February). *Rainwater Harvesting Conference: Capturing Nature's Best for Your Landscape*. Texas Cooperative Extension, Edinburg, TX.

## **Task 6 Extension**

Dozier, M., Melton, R., Hare, M., Porter, D., & Lesikar, B. (2005, October). *Drinking Water Problems: Perchlorate* (TCE Publication L-5468). Texas Cooperative Extension.

Dozier, M., & McFarland, M. (2005, May). *Shock Chlorination of Stored Water Supplies* (TCE Publication E-351). Texas Cooperative Extension.

Dozier, M., & McFarland, M. (2005, May). *Tratando agua almacenada con cloro* (TCE Publication E-351S). Texas Cooperative Extension.

Fernald, A.G. (2005, January). *Watershed hydrology*. NMSU All Extension Conference. Las Cruces, NM.

Fernald, A.G. (2005, March). *El Rio Grande en New Mexico y las interacciones entre aguas superficiales y aguas subterráneas*. El Bicentenario de Ciencia y Tecnología: Uso y Tratamiento del Agua. Chillan, Chile.

Fernald, A., & Guldan, S. (2005, April). *Irrigation Ditch Seepage Effects on Surface Water/Groundwater Interaction Along the Rio Grande River Corridor*. Irrigation Efficiency Project Task 6 On-Farm Technical Group, Rio Grande Basin Initiative Annual Conference, Alpine, TX.

Fernald, A.G. (2005, April). *Hydrological and Ecological Functions of Irrigated Floodplain Agriculture*. New Mexico Agriculture Keys to Survival: A Conference for Key Leaders, Farmers, and Ranchers, Socorro, NM.

Fernald, A.G. (2005, July). *The Role of Traditional Acequia Irrigation Systems in Maintaining Floodplain Hydrologic Functions*. River and Lake Restoration: Changing Landscapes; The University Council on Water Resources Annual Conference, Portland, ME.

Fernald, A., Guldan, S., & Ochoa, C. (2005, August). *Plumbing the links between irrigation seepage, shallow groundwater, and river flow*. Alcalde Field Day. Alcalde, NM.

Fernald, A., & Guldan, S. (2005, November). *Multiple Values of Acequia-Irrigated Agriculture*. Keys to Keeping New Mexico Agriculture Growing Conference, Albuquerque, NM.

Fiore, C., & Schroeder, J. (2005). The Potential for Germination and Establishment of Select Weed Seed on Irrigation Canals in Southern New Mexico. *Proceedings of the Western Society of Weed Science* 58:27.

Hart, C. (2005, January). *Saltcedar control and water salvage on the Pecos River*. Farm Bureau Leadership Conference, Austin, TX.

Hart, C. (2005, February). *Precision aerial application on saltcedar*. Society for Range Management Annual Meeting, Fort Worth, TX.

Hart, C. (2005, March). *Chemical control of saltcedar*. Saltcedar Biological Control Consortium Meeting, El Paso, TX.

Hart, C. (2005, August). *Current activities in the Pecos River Basin*. Pecos Basin 319 Project Meeting, Fort Stockton, TX.

Hart, C., & McMurry, M. (2005, November). *Pecos River Ecosystem Project*. Texas Invasive Species Conference, Austin, TX.

Hart, C. (2005, November). *Current activities in the Pecos River Basin*. Society for Petroleum Engineers Environmental Study Group, Midland, TX.

Helmus, A., Fernald, A., Guldan, S., Ochoa, C., & VanLeeuwen, D. (2006, February). Water quality effects of interactions between surface water and groundwater along the Rio Grande in northern New Mexico. In: *Proceedings of the Society for Range Management 59th Annual Meeting*, Vancouver, BC.

Hernandez, J., Barrick, B., & Ulery, A. (2005, July). *Salinity tolerance of weeds common to irrigation canals in the Mesilla Valley, NM*. Poster was presented at the ASSURED program, New Mexico State University, Las Cruces, NM.

Lesikar, B., Melton, R., Hare, M., Hopkins, J., & Dozier, M. (2005, December). *Drinking Water Problems: Arsenic* (TCE Publications L-5467). Texas Cooperative Extension.

Mecke, M., & Supercinski, D. (2006, January). Harvesting the Rain. *Ranch & Rural Living Magazine*.

Mecke, M. (2005, March). *Water Issues across Texas and the Need for Water Conservation*. Keynote speaker at Calhoun County Annual Water Conservation Banquet.

Mecke, M. (2005, April). Rangeland Water Matters to Everyone. *Rangelands (Society for Range Management)*, p 7-9.



Mecke, M. (2005, May). Many Advantages Seen Through Saving Rainwater. *Fort Stockton Pioneer*. (Newspaper)

Mecke, M. (2005, May). Prosperity and Economic Growth Do Not Have to be at Odds with Conservation. *Fort Stockton Pioneer*.

Mecke, M. (2005, May). Rainwater Can Be Harvested for Use at Home. *Desert Mountain Times*.

Mecke, M. (2005, May-June). Is the Drought Over? Texas Section of *Range Management Newsletter*.

Mecke, M. (2005, June). We Have Had Rain: Is the Drought Over? *Ranch & Rural Living Magazine*.

Mecke, M. (2005, June). *The Importance of Water Quality to Rural Residents*. Presentation at Terrell County Meeting, Sanderson, TX.

Mecke, M. (2005, July). A Couple of Wet Years may not Signal End of Drought in Texas. High Plains Underground Water Conservation District Newsletter.

Mecke, M. (2005, August). Garden Club joins with Extension Office for Scheduled Programs. *Fort Stockton Pioneer*.

Mecke, M. (2005, August). *Water Resources of Pecos County, Texas*. Presentation at Fort Stockton Garden Club monthly meeting.

Mecke, M. (2005, August). Is the Drought Over? Local Expert Says Not Yet. *Fort Stockton Pioneer*.

Mecke, M. (2005, August). Water in Pecos County – What About It? *Fort Stockton Pioneer*.

Mecke, M. (2005, August). Garden Club Tours 16 Desert Landscaping Sites. *Fort Stockton Pioneer*.

Mecke, M. (2005, September). Water Facts Presented to Garden Club. *Fort Stockton Pioneer*.

Mecke, M. (2005, October). *Water Resources of the Trans-Pecos Region of Texas*. Speaker at the Annual Texas Native Plant Society Conference, Alpine, TX.

Mecke, M. (2005, October-November). *Rangeland Watersheds*. Presentations at Rangeland Watershed Monitoring Workshops in Fredericksburg, Odessa and Sonora.

Mecke, M. (2005, December). Rainwater harvesting offers many conservation benefits. The Cross Section, High Plains Underground Water District newsletter, Lubbock, TX.

Mecke, M. (2005, December). *What is a Watershed and What is Water Pollution*. Presentation to 10 classes of school children, Fort Stockton, TX.

Nagihara, S., & Hart, C. (October, 2005). Use of Satellite Remote Sensing in Monitoring Saltcedar Control Along the Lower Pecos River, USA. Submitted to the *River Research and Applications Journal*.

Wilcox, B., Dugas, W., Owens, M.K., Ueckert, D., & Hart, C. (2005). *Shrub Control and Water Yield on Texas Rangelands: Current State of Knowledge*. Texas Agricultural Experiment Station Research Report 05-1.

## **Task 7 Extension**

Garza, O., Lesikar, B., Persyn, R., Kenimer, A., & Anderson, M. (2005). Food service wastewater characteristics as influenced by management practices and primary cuisine type. *Transactions of the American Society of Agricultural Engineers*, 48(4): 1389-1394.

Leinauer, B. (2005, April). *Non-potable saline groundwater for turfgrass irrigation?* Joint Rio Grande Basin Initiatives Annual Conference, Sul Ross State University, Alpine, TX.

Lesikar, B., Garza, O., Persyn, R., Anderson, M., & Kenimer, A. (2006, February). Food Service Establishments Wastewater Characterization. *Water Environment Research*, 78(2): (In press).

Lesikar, B., Richter, A., Weaver, R., & O'Neill, C. (2005, January). On-Site Wastewater Treatment Systems: Liquid chlorination (TCE Publication L-5460). Texas Cooperative Extension.

Lesikar, B., Weaver, R., Richter, A., & O'Neill, C. (2005, January). On-Site Wastewater Treatment Systems: Constructed wetland media (TCE Publication L-5459). Texas Cooperative Extension.

Lesikar, B. (2005, April). On-Site Wastewater Treatment Systems: Selecting and Permitting (Revision of TCE Publication B-6077 (English) and B-6077s (Spanish)). Texas Cooperative Extension.

Lesikar, B., O'Neill, C., Deal, N., Loomis, G., Gustafson, D., & Lindbo, D. (2005, July). On-Site Wastewater Treatment Systems: Homeowner's Guide to Evaluating Service Contracts (TCE Publication B-6171). Texas Cooperative Extension.

Lesikar, B., Hallmark, C. Melton, R., & Harris, B. (2005, August). On-Site Wastewater Treatment Systems: Soil Particle Analysis Procedure (TCE Publication B-6175). Texas Cooperative Extension.

Lesikar, B. (2005). Hydraulic and Organic Loading Rates Affect Drainfield Operation. *TOWA Insider*, Texas Onsite Wastewater Association Newsletter, 12(2): 9.

Lesikar, B. (2005). Aerobic Treatment Unit System Sizing in Texas. *TOWA Insider*, Texas Onsite Wastewater Association, 12(2): 11-12.

Lesikar, B. (2005, April). OWTS 101: Basics of Onsite Wastewater Treatment Systems (Publication Number SP-212). Texas Cooperative Extension.

Lesikar, B. (2005, April). OWTS 201: Overview of Advanced Onsite Wastewater Treatment Systems (Publication Number SP-213). Texas Cooperative Extension.

Lesikar, B. (2005, April). OWTS 320: Drip Distribution Systems for Dispersal of Effluents (Publication Number SP-214). Texas Cooperative Extension.

St. Hilaire, R., Bsoul, E., & Bowen-O'Connor, C. (2005, June). Ecophysiology and micropropagation of bigtooth maples. *Proceedings of the Metropolitan Tree Improvement Alliance Symposium: Increasing Tree Diversity for Sustainable Urban Forests*, Lisle, Illinois. <http://www.ces.ncsu.edu/fletcher/programs/nursery/metria/metria13/hilaire/index.html>, accessed Mar. 8, 2005.

St. Hilaire, R., Bsoul, E., & Bowen-O'Connor, C. (2005, June). Ecophysiology and micropropagation of bigtooth maples. New Mexico Water Conservation Alliance, Turf and Tree Tour, Conservation Current, Winter 2005, page 3.

# RESEARCH

## Task 1 Research

Aristizabal, L., Sheng, Z., Villalobos, J., & Xiang, G. (2005, August). Understanding the hydrogeological characteristics of El Paso lower valley, through groundwater modeling. New Mexico Water Research Symposium, E-23.

Bawazir, B., Samani, Z., Bleiweiss, M., & Skaggs, R. (2005, July). *Measuring Evapotranspiration in Agricultural and Riparian Vegetation*. Poster presented at the 3<sup>rd</sup> Annual Academic and Research Field Day, Leyendecker and Fabian Garcia Plant Science Research Centers, Las Cruces, NM.

Lacewell, R.D., Rister, M.E., & Sturdivant, A.W. (2005, September). *Validating the Estimated Cost of Saving Water Through Infrastructure Rehabilitation in the Texas Lower Rio Grande Valley – A Case Study Using Actual Construction Costs for the Curry Main Pipeline Project, Hidalgo County Irrigation District No. 1 (Edinburg)*. Texas Water Resources Institute. SR 2005-01. College Station, TX.

Lacewell, R.D., Rister, M.E., & Sturdivant, A.W. (2005, September). *Validating the Estimated Cost of Saving Water Through Infrastructure Rehabilitation in the Texas Lower Rio Grande Valley – A Case Study Using Actual Construction Costs for the Lateral A Lining Project, Hidalgo County Irrigation District No. 2 (San Juan)*. Texas Water Resources Institute. SR 2005-02. College Station, TX.

Lacewell, R.D., A.W. Sturdivant, A.M. Michelsen, M.E. Rister, & Sheng, Z. (2005, July). *Estimated Benefits from Restoration of IBWC Rio Grande Flood-Control Projects*. Proceedings of 'River and Lake Restoration: Changing Landscapes,' University Council on Water Resources Annual Meeting. Portland, ME. (Abstract).

Rister, M.E., Lacewell, R.D., & Sturdivant, A.W. (2005, September). *Economic and Conservation Evaluation of Capital Renovation Projects: United Irrigation District of Hidalgo County (United) – Rehabilitation of Main Canal, Laterals, and Diversion Pump Station – Preliminary*. Texas Water Resources Institute. TR-286. College Station, TX.

Rister, M.E., Lacewell, R.D., & Sturdivant, A.W. (2006, March). *Economic and Conservation Evaluation of Capital Renovation Projects: United Irrigation District of Hidalgo County (United) – Rehabilitation of Main Canal, Laterals, and Diversion Pump Station – Final*. Texas Water Resources Institute. TR-288. College Station, TX.

Samani, Z., Nolin, S., Bleiweiss, M., & Skaggs, R. (2005). Discussion of 'Predicting Daily Net Radiation Using Minimum Climatological Data' by S. Irmak, A. Irmak, J.W. Jones, T.A. Howell, J.M. Jacobs, R.G. Allen, and G. Hoogenboom. *ASCE Journal of Irrigation and Drainage Engineering*, Vol. 129, No. 4, July-August 2005:388-389.

Samani, Z., Sammis, T., Skaggs, R., Alkhatiri, N., & Deras, J. (2005). Measuring On-Farm Irrigation Efficiency with Chloride Tracing under Deficit Irrigation. *American Society of Civil Engineers (ASCE) Journal of Irrigation and Drainage Engineering*, Vol. 131, No. 6, November-December 2005:555-559.

Sheng, Z. & Devere, J. (2005). Systematic management for a stressed transboundary aquifer: the Hueco Bolson in the Paso del Norte region. *Journal of Hydrogeology*, Vol. 13, No. 5-6: pp. 813-825.

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Sheng, Z. (2005, June). *Challenges Faced by Aquifer Storage and Recovery System for the Reclaimed Wastewater in El Paso, Texas*. Invited presentation at the Aquifer Storage and Recovery Workshop of American Water Work Association 2005 Annual Conference, San Francisco, CA.

Sheng, Z. (2005, April). *Water conservation potential by lining canals in the Rio Grande Project area*. Invited presentation at Environmental Science and Engineering Graduate Program Seminar, University of Texas at El Paso.

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### **Task 3 Research**

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### **Task 4 Research**

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Falkenberg, N.R., Piccinni, G., Leskovar, D.I., Cothren, J.T., & Rush, C.M. (2005). Remote sensing for site-specific management of biotic and abiotic stress in cotton. *Proceedings of the 2005 Beltwide Cotton Conference*.

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Uckoo, R.M., Nelson, S.D., & Enciso, J. (2005, November). *Management strategies for irrigation use efficiency in grapefruit production*. Texas A&M University System 3<sup>rd</sup> Annual Pathways to the Doctorate Symposium. Kingsville, TX.

Uckoo, R.M., Nelson, S.D., Enciso, J.M., & Shantidas, K.J. (2005). Irrigation and fertilizer efficiency in South Texas grapefruit production. *Subtropical Plant Science. Journal of the Rio Grande Valley Horticultural Society*. 57: Peer Review.

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Wiedenfeld, B. (2005, June). *Conservation tillage effects in a subtropical environment on crop production, soil properties and water use*. Southern Branch American Society of Agronomy. San Antonio, TX.

Wiedenfeld, B., & Enciso, J. (2005, June). *Irrigation and nitrogen application effects on sugarcane production in the Lower Rio Grande Valley of Texas*. American Society of Sugarcane Technology, Panama City Beach, FL.

Wiedenfeld, B., Enciso, J., & Jifon, J. (2005, November). *Sugarcane water use on a sandy clay loam soil in semiarid South Texas*. American Society of Agronomy-Crop Science Society of America-Soil Science Society of America International Annual Meetings. Salt Lake City, UT.

## **Task 5 Research**

Bowen-O'Connor, C., Hubstenberger, J., Van Leeuwen, D., & St. Hilaire, R. (2005). *In vitro micropropagation of bigtooth maple*. Abstracts P-3026 of the In Vitro Biology Meeting, Baltimore, MD, page 11.



Bowen-O'Connor, C., Hubstenberger, J., Van Leeuwen, D., & St. Hilaire, R. (2005). In vitro rooting of bigtooth maple microshoots. *HortScience* 40: 1081.

Cabrera, R. (2005). *Greenhouse rose productivity and nutrient status in response to fertilization with a controlled-release fertilizer*. Book of Abstracts of 4<sup>th</sup> International Symposium on Rose Research and Cultivation, 49.

Cabrera, R., Solís, A., Hill, S., McKenney, C., & Rahman, L. (2005). Greenhouse and landscape rose (*Rosa* spp.) responses to salinity. *Proceedings of the International Salinity Forum*, 23-26.

Cabrera, R. (2005, February). Salinity tolerance in greenhouse roses: Whole plant biomass and nutrient partitioning. *International Cut Flower Growers Association Bulletin*, 15-21.

Cabrera, R. (2005, February). *Mineral nutrition and fertilization of urban trees and shrubs*. Presentation at the 2005 North Central Texas Urban Forestry Workshop, Grand Prairie, TX.

Cabrera, R. (2005, February). *Effect of water quality and fertility on flowering woody plants*. Presentation at the Advanced Horticultural Studies Short Course: Studies on Flowering Woody Plants, Dallas, TX.

Cabrera, R., Solís, A., Hill, S., McKenney, C., & Rahman, L. (2005, April). *Greenhouse and landscape rose (Rosa spp.) responses to salinity*. Paper presented at the International Salinity Forum, Riverside, CA.

Cabrera, R. (2005, June). *Texas A&M crape myrtle research 1975-2005*. Paper presented at the Crape Myrtle National Conference, McKinney, TX.

Cabrera, R. (2005, July). *Irrigation water quality and nursery/landscape plant production and management*. Presentation at the Texas Nursery & Landscape Association: Texas Master Certified Nursery Professional Workshop, Dallas, TX.

Cabrera, R. (2005, August). *Improving water and nutrient efficiency in landscape plants*. Presentation at the Texas Nursery & Landscape Association Nursery/Landscape Pre-Expo Education Conference, Dallas, TX.

Cabrera, R. (2005, August). *El cultivo del rosal de invernadero para flor cortada*. Short Course presented at Diplomado Internacional en Horticultura Protegida, Texcoco, México.

Cabrera, R. (2005, November). *Evaluando la sensibilidad y tolerancia a salinidad en rosas de invernadero*. Paper presented at Seminario Internacional de Fertirriego, Universidad Nacional de Colombia, Bogotá.

Cabrera, R. (2005, November). *Consideraciones sobre la nutrición mineral y fertilización en rosas*. Paper presented at Seminario Internacional de Fertirriego, Bogotá.

Cabrera, R. (2005). Cultivar selection and species affect the salinity tolerance of crape myrtles (*Lagerstroemia* spp.). *Proceedings of the Southern Nursery Association Research Conference*. In Press.

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Feser, C.F., St. Hilaire, R., & Van Leeuwen, D. (2005). Development of in-ground container plants of Mexican elders exposed to drought. *HortScience* 41:446-450.

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Leinauer, B. (2005). *Installation of Subsurface Drip Irrigation Systems in Turf*. Workshop Landscape, Vegetable Garden and Olla Drip Irrigation, 2005 All Extension Conference, Las Cruces Hilton.

Leinauer, B. (2005, January). *Subsurface Irrigation for the Golf Course*. 43<sup>rd</sup> Annual Nebraska Turfgrass Conference and Trade Show. Nebraska Turfgrass Association. Omaha, NE.

Leinauer, B. (2005, January). *Subsurface Irrigation for Sports Turf*. 43<sup>rd</sup> Annual Nebraska Turfgrass Conference and Trade Show. Nebraska Turfgrass Association. Omaha, NE.

Leinauer, B. (2005, March). *New Technologies for Effective Irrigation*. Fairway Congress and Trade Show. Munich, Germany.

Leinauer, B. (2005, April). *Water Repellency in Sprinkler- and Subirrigated Turfgrass Root Zones*. Meeting of the General Assembly of the European Geosciences Union, Vienna, Austria.

Leinauer, B. (2005, April). *Effect of Irrigation Type and Root Zone Material on Irrigation Efficiency and Turfgrass Quality in the Southwest*. Joint Rio Grande Basin Initiatives Annual Conference. Sul Ross State University, Alpine, TX.

Leinauer, B., Makk, J., Karcher, D., & Barrick, T. (2005, April). Water repellency in sprinkler- and subirrigated turfgrass root zones. 2005 European Geosciences Union, Session SSS8: Soil

water repellency: origin, environmental controls and hydrological impacts. Vienna, Austria. (Abstract).

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Mackay, W., McKenney, C., Colbaugh, P., George, S., Sloan, J., & Cabrera, R. (2005). Performance of garden roses under minimal input conditions in North-Central Texas. *HortScience*. In Press.

Niu, G., D.S. Rodriguez, W. Hill, and A. Cooley. (2005, April). Evaluating salt tolerance of selected herbaceous perennials and groundcover landscape plants. Poster, presented at RGBI conference, Alpine, TX.

Niu, G., & Rodriguez, D. (2005, July). Growth responses of *Salvia greggii* and *Dalea frutescens* to drought stress. *HortScience*, 40, 1036.

Niu, G. (2005, October). *Salt tolerance of landscape plants*. Southwest Turfgrass Conference, Albuquerque, NM.

Niu, G. (2005, November). *Drought and salt tolerance of landscape plants*. [Seminar]. Department of Horticulture, Texas A&M University.

Picchioni, G.A., Mackay, W.A., & Valenzuela-Vazquez, M. (2005). Correlative Supply and Demand Functions in *Lupinus havardii*: A Forgotten Side of Cut Flower Physiology? *Journal of American Society for Horticultural Science*. (In Press).

Silvy, V., Kaiser, R., & Lesikar, B. (2005, September). *Views from the River Front* (TCE Publication B-6180). Texas Cooperative Extension.

Silvy, V., Kaiser, R., & Lesikar, B. (2005, February). *Preference and Feasibility of Urban Water Conservation Strategies in the Rio Grande Basin*. Paper presented at Rainwater Harvesting Conference, Edinburg, TX.

Silvy, V., Kaiser, R., Lesikar, B., & Runyan, C. (2005, September). *Views from the River Front, Rio Grande Decision Makers Rank Water Conservation Strategies*. Poster presented at the Managing Landscapes and Watersheds for Water Resources Summit in Santa Fe, NM.

Silvy, V., Kaiser, R., & Lesikar, B. (2006, February). *Rio Grande Decision Makers Rank Water Conservation Strategies*. Paper presented at USDA-CSREES National Water Conference, San Antonio, TX.

Silvy, V., Kaiser, R., & Lesikar, B. (2006, April). *Rio Grande Decision Makers Rank Barriers to Water Conservation Strategies*. Paper to be presented at Texas Water 2006, American Water Works Association, Austin, TX.

Solís-Pérez, A., & Cabrera, R. (2005). *Salinity and sodicity tolerance in roses: The effect of the counter-anion(s)*. Proceedings of the Southern Nursery Association Research Conference. In Press.

Solís-Pérez, A., Cabrera, R., & Rahman, L. (2005). *Evaluating counter-ion effects on greenhouse roses subjected to moderately-high salinity and sodicity levels*. Book of Abstracts of 4<sup>th</sup> International Symposium on Rose Research and Cultivation, 24-25.

## **Task 6 Research**

Assadian, N., Di Giovanni, G., Enciso, J., Iglesias, J., & Lindemann, W. (2005). *The transport of waterborne solutes and bacteriophage in soil subirrigated with a wastewater blend*. *Agriculture, Ecosystems & Environment*, 111, 279-291.

Cowley, D.E., Shirey, P.D., & Hatch, M.D. (2005). Ecology of the Rio Grande silvery minnow (*Hybognathus amarus*) inferred from specimens collected in 1874. *Reviews in Fisheries Science* 14: (In Press).

Cowley, D.E. (2005). Strategies for restoration of the middle Rio Grande and recovery of the Rio Grande silvery minnow. *Reviews in Fisheries Science* 14: (In Press).

Cowley, D.E., & Sallenave, R. (2005). Conservation and management of aquatic resources in arid lands. *Reviews in Fisheries Science* 14: (In Press).

Di Giovanni, G. (2005, November). *Quantitative methods for the molecular detection and infectivity determination of waterborne pathogens*. Paper presented at the International Society for Exposure Analysis Conference, Tucson, AZ.

Di Giovanni, G., Betancourt, W., Hernandez, J., Assadian, N., Flores Márgez, J., & Jaramillo Lopez, E. (2006). Investigation of potential zooanthroponotic transmission of cryptosporidiosis and giardiasis through agricultural use of reclaimed wastewater. Accepted to *International Journal of Environmental Health Research*.

Fernald, A.G., Baker, T.T., & Guldán, S.J. (2005). Hydrologic, Riparian, and Agroecosystem Functions of Traditional Acequia Irrigation Systems. *Journal of Sustainable Agriculture*. (In Press).

Moore, G.W., & Owens, M.K. (2005, May). *Relative Contribution of Nighttime Transpiration to Daily Total Water Use by Tamarix in a Desert Riparian Woodland*. American Geophysical Union, New Orleans, LA.

Moore, G., & Owens, M. K. (2005, August). *Will removing Tamarix from the Bosque understory result in water savings for the Rio Grande?* Ecological Society of America, Montreal, Canada.

Owens, M.K., Moore, G.W., & Ayala, R. (2005, December). *Precipitation pulses in a saltcedar community: are they important?* (H53E-0527). American Geophysical Union, San Francisco, CA.

Paroz, Y.M. (2005). *Population attributes and landscape scale habitat associations of Rio Grande cutthroat trout (Oncorhynchus clarki virginalis)*. Master's Thesis, New Mexico State University.

Sallenave, R. & Cowley, D.E. (2005). Science and effective policy for managing aquatic resources. *Reviews in Fisheries Science* 14: (In Press).

Wilcox, B.P., D.A. Dugas, M.K. Owens, D.N. Ueckert, & C.R. Hart. (2005). *Shrub Control and Water Yield on Texas Rangelands: Current State of Knowledge*. Texas Agricultural Experiment Station, Research Report 05-1, 21p.

## **Task 7 Research**

Assadian, N., Lindemann, W. Balliew, J., & Figueroa, U. (2005). Short-term prevention of ammonia loss from lime-stabilized biosolids. *Water Environment Research*. (Submitted)

Assadian, N., Di Giovanni, G., Enciso, J., Iglesias, J., & Lindemann, W. (2005). The Movement of Waterborne Solutes and Bacteriophage in Soil Subirrigated with a Wastewater Blend. *Agriculture, Ecosystems & Environment*, 111, 279-291.

Assadian, N., Flores Márgez, J., & Crawford, C. (2005, November). *The Effect of Incorporated Lime Stabilized Biosolids on the pH of Moderately Alkaline and Calcareous Soils*. American Society of Agronomy – Crop Science Society of America – Soil Science Society of America International Annual Meeting, Salt Lake City, UT. (Poster Presentation).

Assadian, N., & Flores Márgez, J. (2005, November). *A Comparison of Chemical Fractionation and In Vitro Extraction Methods to Predict the Bio-accessibility of Trace Metals in Alkaline Soils*. American Society of Agronomy – Crop Science Society of America – Soil Science Society of America International Annual Meeting, Salt Lake City, UT. (Poster Presentation).

Brown, W., & Assadian, N. (2005, November) *Developing Strategies to Extract Salts and Water from Concentrate for Beneficial Use*. American Society of Agronomy – Crop Science Society of America – Soil Science Society of America International Annual Meeting, Salt Lake City, UT. (Poster Presentation).

Leinauer, B. (2005, April). *Non-Potable Saline Groundwater for Turfgrass Irrigation?* Joint Rio Grande Basin Initiatives Annual Conference. Sul Ross State University, Alpine, TX.

Leinauer, B. (2005, April). *Turfgrass Establishment with Saline Groundwater*. Joint Rio Grande Basin Initiatives Annual Conference. Sul Ross State University, Alpine, TX.

Mendoza, C., Assadian, N., & Lindemann, W. (2005). Nitrogen transformations and losses in biosolids amended soil. *Chemosphere*. (Accepted for publication).

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Miyamoto, S. (2005). Salinity Management for Irrigated Production of Pecans. In *Proceedings from International Pecan Conference*, Delicias, Mexico.

Ruiz, A., T.W. Sammis, G.A. Picchioni, J.G. Mexal, and Mackay, W.A. (2006). Irrigation scheduling protocol for treated industrial effluent in the Chihuahuan Desert. *American Water Works Association Journal*. (In Press).

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## **Task 8 Research**

Miyamoto, S., Yuan, F., McDonald, A., Anaya, G., & Belzer, W. (2006). *Reconnaissance Survey of Salt Sources and Loading into the Pecos River*. Submitted to US EPA. (Being revised).

Miyamoto, S., Yuan, F., & Anand, S. (2006). *Influence of Tributaries on Salinity of Amistad International Reservoir*. (In draft).

Samani, Z., Bleiweiss, M., Nolin, S., & Skaggs, R. (2005, March). *Regional ET Estimation from Satellites*. A presentation to the Third International Conference on Irrigation and Drainage: Water District Management and Governance, United States Committee on Irrigation and Drainage, San Diego, CA.

Samani, Z., Bleiweiss, M., Skaggs, R., & Sanderson, R. (2005, April). *Regional ET Estimation from Satellites*. Poster presented at the European Geosciences Union General Assembly 2005, Vienna, Austria.

Sheng, Z., Villalobos, J., & Michelsen, A. (2005, July). *Integrated GIS method for estimation of riparian coverage along the Lower Rio Grande*. Presented at the Annual Conference of the Universities Council on Water Resources, Portland, Maine [CD-ROM].

Sheng, Z., & Villalobos, J. (2005, July). *Evaluation of potential flood areas using GIS*. The 2005 Environmental Systems Research Institute (ESRI) International User Conference, San Diego, CA.

Sheng, Z., Michelsen, A., Villalobos, J., et. al. (2005, August). *Coordinated database and GIS for the Paso del Norte watershed management*. Presented at the New Mexico Water Research Symposium, C-30.

Sheng, Z., Tillery, S., King, J., Creel, B., Brown, C., Michelsen, A., & Srinivasan, R. (2005, September). *Conceptual Model Development for the Rio Grande Flow, Phase II report*, prepared for the U.S. Army Corps of Engineers.