

GIRISHA K. GANJEGUNTE

Associate Professor

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EXPERTISE

Dr. **Ganjegunte**'s research program specializes in water resources and salinity management. Current projects include developing alternative water sources (industrial and urban wastewater, saline groundwater and graywater) for beneficial uses including irrigation, evaluation of electromagnetic induction (EMI) for rapid assessment of salinity at a high spatial resolution, on-farm water conservation, and soil salinity management. His program has established strong collaborations with local growers, water managers and researchers within Far West Texas region as well as international institutions. He serves as a reviewer for several scientific journals, and is the editorial board member of "Trends in Soil Science and Plant Nutrition Journal". Dr. Ganjegunte is the recipient of 2007 Outstanding Young Agricultural Scientist award of AASIO. He received the prestigious British Commonwealth Scholarship for pursuing Ph.D. research in Soil Science at Lincoln University, New Zealand. Prior to joining TAMU, Dr. Ganjegunte worked at the University of Wyoming and Tata Energy Research Institute, India.

EDUCATION

Ph.D., Soil Science. Lincoln University, Canterbury, New Zealand.

M.Sc., Soil Science. University of Agricultural Sciences, Bangalore, India.

B.Sc., Agricultural Sciences. University of Agricultural Sciences, Bangalore, India.

EXPERIENCE

Associate Professor, 09/2012-Present. Texas A&M AgriLife Research and Extension Center at El Paso, Dept. Soil & Crop Sciences, Texas A&M University System. Water Resources and Salinity Management.

Assistant Professor, 03/2006-08/2012. Texas A&M AgriLife Research and Extension Center at El Paso, Dept. Soil & Crop Sciences, Texas A&M University System. Conducting research on water and salinity management in the Far West Texas.

Research Scientist (Post-Doctoral), 01/2003-03/2006. Department of Renewable Resources, University of Wyoming, Laramie, Wyoming. Conducted research on management of coalbed natural gas (CBNG) water with elevated salinity in the Powder River Basin (PRB) covering parts of Wyoming and soil carbon sequestration in different ecosystems (rangelands, forest, and reclaimed coal mine lands).

Research Associate, 05/1993-01/2003. Tata Energy Research Institute (TERI), New Delhi, India. Carried out multidisciplinary research related to improved agricultural practices, natural resources management at a watershed scale, evaluation of reclamation practices in open cast coal and lignite mines, identification and management of problematic soils, and climate change impacts on soil-water resources.

SELECTED PUBLICATIONS

1. **Ganjegunte, G.K.**, Z. Sheng, and J.A. Clark. 2014. "Soil Salinity and Sodicity Appraisal by Electromagnetic Induction in Irrigated Cotton Soils". Land Degradation & Development. 25:228-235.
2. Sun, Y., G. Niu, P. Osuna, L. Zhao, **G. K. Ganjegunte**, G. Peterson, J.R. Peralta-Videa, and J. L. Gardea-Torresdey. 2014. "Variability in Salt Tolerance of *Sorghum bicolor* L". Agricultural Science. 2:9-21.
3. Johnston, C.R., G.F. Vance, and **G.K. Ganjegunte**. 2013. "Soil Property Changes Following Irrigation with CBNG Water: Role of Water Treatments, Soil Amendments, and Land Suitability". Land Degradation and Development. 24:350-362.
4. Sun, Y., G. Niu, P. Osuna, **G. Ganjegunte**, D. Auld, L. Zhao, J. Gardea-Torresdey, and J. Peralta. 2013. "Seedling emergence and Growth of *Ricinus communis* L. Cultivars Irrigated with Saline Solution". Industrial Crops and Products. 49:75-80
5. **Ganjegunte, G.K.**, B. Leinauer, M. Schiavon, and M. Serena. 2013. "Using Electro-Magnetic Induction to Determine Soil Salinity and Sodicity in Turf Root Zones". Agronomy Journal. 105:836-844.
6. **Ganjegunte, G.K.**, Z. Sheng, and J.A. Clark. 2012. "Evaluating the Accuracy of Soil Water Sensors for Irrigation Scheduling to Conserve Freshwater." Applied Water Science. 2: 119-125.
7. **Ganjegunte, G.K.**, and R.J. Braun. 2011. "Delineating Salinity and Sodicity Distribution in Major Soil Series of El Paso, Texas using Electro-Magnetic Induction Technique." Soil Science. 176:441-447.
8. **Ganjegunte, G.K.**, Z. Sheng, and R. Braun. 2011. "Salinity Management Using an Anionic Polymer in a Pecan Field with Calcareous-Sodic Soil." Journal of Environmental Quality. 40:1314-1321.
9. **Ganjegunte, G.K.**, C.L. Trostle, and R.J. Braun. 2011. "Irrigation Effects of Cooling Tower Effluent on Soil Chemistry and Alfalfa in the Rio Grande River Basin." Land Degradation & Development. 22:410-424.
10. **Ganjegunte, G.K.**, G.F. Vance, R.W. Gregory, M.A. Urynowicz, and R.C. Surdam. 2011. "Improving Saline-Sodic Coalbed Natural Gas Water Quality Using Natural Zeolites." Journal of Environmental Quality 10:57-66.
11. **Ganjegunte, G.K.**, A.F. Wick, P.D. Stahl and G.F. Vance. 2009. "Accumulation and Composition of Total Organic Carbon in Reclaimed Coal Mine Lands." Land Degradation & Development 20:156-175.
12. Johnston, C.R., G.F. Vance, and **G.K. Ganjegunte**. 2008. "Irrigation with Coalbed Natural Gas Co-Produced Water." Agricultural Water Management 95:1243-1252.
13. **Ganjegunte, G.K.**, L.A. King and G.F. Vance. 2008. "Cumulative Soil Chemistry Changes from Land Application of Saline-Sodic Waters". Journal of Environmental Quality. 37 (5): S128-S138.
14. Vance, G.F., King, L.A., and **G.K. Ganjegunte**. 2008. "Soil and Plant Responses from Land Application of Saline-Sodic Waters: Implications of Management". Journal of Environmental Quality. 37 (5): S139-S148.