



NRCS This Week

Your Report for Conservation on Private Lands

New Texas Initiative Targets Water Conservation



NRCS Chief Bruce Knight (second from left) visits a Texas Alliance for Water Conservation demonstration site to learn more about the project's potential

NRCS, SARE, and [Texas Tech University](#) are teaming up to reduce agricultural water consumption across the Texas High Plains. Texas Tech University researcher Vivien Allen along with her management team and NRCS conservation agronomist Monty Dollar will be able to demonstrate their water-conserving farming strategies in an effort to control the dropping water level in the Ogallala aquifer thanks to a [\\$6.2 million State grant](#). Allen's team, the Texas Alliance for Water Conservation, is also using the opportunity to test their moisture-conserving systems across 4,000-acres on 26 farms and ranches. NRCS Chief Bruce Knight visited some of the demonstration sites last June to learn more about the project's potential.

Cotton in Texas remains a huge industry, with about one-quarter of the total U.S. cotton supply coming from the state's High Plains region. Yet, with water levels declining in the Ogallala aquifer, the main water source for northern Texas growers, scientists such as are seeking water-conserving alternatives to monocultured cotton. The Texas Alliance for Water Conservation has developed an innovative cotton, cattle, and forage rotation that not only reduced water use by about 23 percent, but

also yielded higher profits.

The state initiative, championed by state Senator Robert Duncan, made headlines because of its dollar amount and potential positive impact on water use.

Much of the High Plains region relies on the Ogallala for water, including Nebraska, Colorado, Wyoming, Oklahoma, Kansas, New Mexico and Texas. In Texas, the High Plains region has been targeted as a high priority under EQIP, and most of those funds are awarded for highly efficient irrigation practices, Dollar said.

"The declining aquifer greatly affects us," added Dollar, a member of the team for Allen's SARE-funded research and the new demonstration project. "Irrigation water is instrumental in producing profitable yields that sustain our operations. Yet, we've got to learn to live with less water. We're going to find out if we can do that."

Starting in the early 1940s, when Texas farmers began irrigating from wells drilled into the Ogallala, irrigation proved a reliable inexpensive practice. As water levels in the Ogallala drop, however, cotton farmers face increased fuel costs to extract water.

By contrast, Allen's research focuses on diversifying into profitable rotations that use less water. Under the state project, producers will test diversified systems, with the conservation team measuring their water use.

"The producers will apply these water-conserving strategies, giving us practical data from the field," Dollar said. For instance, some farmers will rotate pasture grasses with cotton for forage or grazing; others will

over-seed cool-season cereal crops into cotton for cover crop protection, livestock grazing or harvest.

Project leaders look forward to the next step.

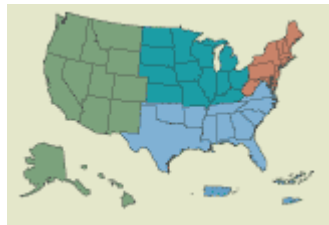
"The thing that's really unique about the demonstration project is the cooperation among producers and state and federal entities" said Rick Kellison, a producer and the director of the demonstration project.

"This is a novel approach, the next era of research," said Allen. "Now, in addition to the four replicated systems on the research farm, we have 26 ways additional ways to test systems in real-time conditions on farms under the producers' management. It's enormous."

About SARE

Since 1988, the [Sustainable Agriculture Research and Education \(SARE\) program](#) has helped advance farming systems that are profitable, environmentally sound and good for communities through a nationwide grants program. The program, administered by the Cooperative State Research, Education, and Extension Service, USDA, funds projects and conducts outreach designed to improve agricultural systems and natural resources.

NRCS field office professionals frequently collaborate on SARE-funded projects and are valuable partners to the SARE program. NRCS staff serve on SARE's national Operations Committee, on regional Administrative Councils, on State committees and are actively engaged as technical advisers and collaborators on SARE-funded research grants around the U.S.



For more information, visit the [SARE website](#) or for more information about the regional SARE programs, click on the region area of the map below.

Your contact is [Diana Friedman](#), SARE research associate, at 301-504-6422.