What is SARE?

Since 1988, the Sustainable Agriculture Research & Education (SARE) program has been the go-to USDA grants and outreach program for farmers, ranchers, researchers and educators who want to develop innovations that improve farm profitability, protect water and land, and revitalize communities. To date, SARE has awarded over $309 million to more than 7,407 initiatives.

SARE is grassroots with far-reaching impact

Four regional councils of expert practitioners set priorities and make grants in every state and island protectorate.

SARE communicates results

SARE shares project results by requiring grantees to conduct outreach and grower engagement; and by maintaining an online library of practical publications, grantee-produced information products and other educational materials.

SARE in Texas

southern.sare.org/sare-in-your-state/texas

$7,608,522 in total funding

109 grant projects (since 1988)

For a complete list of grant projects state by state, go to www.sare.org/state-summaries

Project Highlight: Training for a Sustainable Agriculture Future

Thousands of Texas ranchers hurt by drought are seeking new ways to make their land profitable. Large Texas farms are being subdivided. Farms of all sizes are now in closer contact with non-agricultural communities due to urban growth. Agriculture in Texas is changing, and the technical professionals who support producers must keep up by learning innovative, research-based production and marketing strategies relevant to their clientele’s interests. This need prompted Texas A&M Extension educators to organize a SARE-funded training program on the sustainable and organic practices that are of emerging interest to Texas’ farmers and ranchers. The program reached 45 employees of Texas A&M and Prairie View A&M Extension, and the USDA Natural Resources Conservation Service. It included hands-on farm training conducted at six locations, with classroom presentations and discussions over four days. Eleven farmers and ranchers served as trainers during the on-site visits. Participants reported back on what they did in their communities as a result of their involvement in the program. Five months after conclusion of the training, they brought information about sustainable and organic practices to 1,000 farmers in 37 different counties through a combination of events and one-on-one outreach.

For more information on this project, see sare.org/projects, and search for project number ES13-120.
SARE Grants in Texas

Total awards: 109 grants
- 25 Farmer/Rancher
- 23 Graduate Student
- 17 On Farm Research/Partnership
- 8 Professional Development Program
- 36 Research and Education

Total funding: $7,608,522
- $241,676 Farmer/Rancher
- $268,173 Graduate Student
- $258,413 On Farm Research/Partnership
- $643,658 Professional Development Program
- $6,196,602 Research and Education

Find a complete list of projects on page 3.

SARE's Impact

- 53 percent of producers report using a new production technique after reading a SARE publication.
- 79 percent of producers said they improved soil quality through their SARE project.
- 64 percent of producers said their SARE project helped them achieve higher sales.

Learn about local impacts at: southern.sare.org/sare-in-your-state/texas

Contact Your SARE State Coordinator

SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit southern.sare.org/state-pages/texas to learn more.

Diane E. Boellstorff
Texas AgriLife Extension Service
(979) 458-3562
dboellstorff@tamu.edu

Nelson Daniels
Prairie View A&M University
(936) 261-5112
ndaniels@ag.tamu.edu

For detailed information on SARE projects, go to www.SARE.org

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA).

This report includes summaries of competitive grant programs only. Some competitive grant programs that are no longer offered may be included or excluded from the totals in this report depending on the grant program and SARE region.
Texas has been awarded $7,648,522 grants to support 112 projects, including but not limited to, 35 research and/or education projects, 8 professional development projects and 25 producer-led projects. Texas has also received additional SARE support through multi-state projects.

### RESEARCH AND EDUCATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS20-341</td>
<td>Assessing Water Use Efficiency, Soil Health, and Pollinators within a Transition from Irrigation to Dryland Management in the Texas High Plains</td>
<td>$299,208</td>
<td>Dr. Charles West&lt;br&gt; Texas Tech University&lt;br&gt; Dr. Veronica Acosta-Martinez&lt;br&gt; USDA-ARS&lt;br&gt; Dr. Krishna Bhandari&lt;br&gt; Texas Tech University&lt;br&gt; Dr. Scott Longing&lt;br&gt; Texas Tech University</td>
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<tr>
<td>LS20-343</td>
<td>Toward Culturally Responsive Disaster Management for Limited Resource Producers: The Role of Person, Place and Professional Agencies</td>
<td>$300,000</td>
<td>Dr. Noel Estwick&lt;br&gt; Prairie View A&amp;M University&lt;br&gt; Dr. Nelson Daniels&lt;br&gt; Prairie View A&amp;M University&lt;br&gt; Dr. Marco Robinson&lt;br&gt; Prairie View A&amp;M University</td>
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<tr>
<td>LS19-313</td>
<td>Organic and Conventional Agriculture: Learning from Each Other to Promote Soil Health and Economic Viability in West Texas</td>
<td>$299,667</td>
<td>Dr. Katie Lewis&lt;br&gt; Texas A&amp;M AgriLife Research</td>
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<tr>
<td>LS19-312</td>
<td>Regional Food Transportation for Texas Farmers</td>
<td>$299,311</td>
<td>Caroline Krejci&lt;br&gt; The University of Texas at Arlington</td>
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<tr>
<td>LS18-288</td>
<td>A Southern Regional Water Conference to Improve Producer Adoption of Sustainable Water Management Practices</td>
<td>$48,000</td>
<td>Dr. Diane Boellstorff&lt;br&gt; Texas A&amp;M AgriLife Extension Service</td>
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<tr>
<td>LS17-283</td>
<td>Developing Organic Cropping Systems for Grain Production in Texas</td>
<td>$276,000</td>
<td>Ronnie Schnell&lt;br&gt; Texas A&amp;M University, Soil &amp; Crop Sciences</td>
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<tr>
<td>LS17-286</td>
<td>Long-term AgroEcosystems Research and Adoption in the Texas Southern High Plains - Phase III</td>
<td>$300,000</td>
<td>Dr. Charles West&lt;br&gt; Texas Tech University</td>
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<tr>
<td>LS17-277</td>
<td>Indicators and Soil Conservation Practices for Soil Health and Carbon Sequestration</td>
<td>$312,000</td>
<td>Dr. Barbara Bellows&lt;br&gt; Tarleton State University/ TIAER</td>
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<tr>
<td>LS16-271</td>
<td>Intensifying Cropping Systems in Semi-Arid Environments to Enhance Soil Health and Profitability</td>
<td>$232,827</td>
<td>Dr. Paul DeLaune&lt;br&gt; Texan A&amp;M AgriLife Research / Soil and Crop Sciences</td>
</tr>
<tr>
<td>LS16-275</td>
<td>Evaluating Organic Pest Control Products for Strawberries in Combination with High and Low Tunnels for Limited Resource Farmers in the Mid-South</td>
<td>$246,413</td>
<td>Dr. Russell Wallace&lt;br&gt; Texas A&amp;M University AgriLife Extension</td>
</tr>
<tr>
<td>LS14-261</td>
<td>Long-term AgroEcosystems Research and Adoption in the Texas Southern High Plains - Phase II</td>
<td>$300,000</td>
<td>Dr. Charles West&lt;br&gt; Texas Tech University</td>
</tr>
</tbody>
</table>
| LS14-264 | Beyond Fresh: Expanding Markets for Sustainable Value-added Food Products in Texas | $220,000 | Mike Morris  
National Center for Appropriate Technology |
|----------|---------------------------------------------------------------------------------|---------|------------------------------------------|
| LS12-249 | Improving Soil Quality to Increase Yield and Reduce Diseases in Organic Rice Production | $225,000 | Fugen Dou  
Texas A&M AgriLife Research |
| LS11-238 | Long-term AgroEcosystems Research and Adoption in the Texas Southern High Plains – Phase I | $329,999 | Dr.Charles West  
Texas Tech University  
Philip Brown  
Texas Tech University |
| LS10-229 | Integrated Crop and Livestock Systems for Enhanced Soil Carbon Sequestration and Microbial Diversity in the Semiarid Texas High Plains | $160,000 | Dr.Jennifer Moore-Kucera  
Texas Tech University |
| LS10-236 | Traceability in Specialty Crop Production and Supply Chains: Distilling a Research and Extension Agenda | $33,000 | Kathryn Boys  
Virginia Tech  
Kathryn Boys  
Clemson University |
| LS08-202 | Crop-livestock Systems for Sustainable High Plains Agriculture | $200,000 | Dr.Vivien Allen  
Texas Tech University |
| LS08-208 | Marketing of locally produced sustainable animal fiber products | $140,000 | John Bernard  
University of Delaware  
Hikaru Hanawa Peterson  
Kansas State University  
Gwendolyn Hustvedt  
Texas State University |
| LS07-201 | Pigeon pea: a multipurpose, drought resistant forage, grain and vegetable crop for sustainable southern farms | $200,000 | Dr.John Sloan  
Texas AgriLife Research |
| LS05-214 | SARE Research and Education Program Impacts and Diffusion | $31,526 | Marari Suvedi  
CARRS Center for Evaluative Studies |
| LS05-175 | Sustainable and profitable control of invasive plant species by small ruminants | $178,000 | Dr.James Muir  
Texas A&M AgriLife Research |
| LS03-144 | Expanding the Marketing Opportunities for Organic Growers in Texas | $19,924 | Douglas Constance  
Sam Houston State University |
| LS03-150 | Sustainable and profitable control of invasive species by browsing goats on small farms | $14,199 | Dr.James Muir  
Texas A&M AgriLife Research |
| LS02-131 | Forage and Livestock Systems for Sustainable High Plains Agriculture | $251,805 | Dr.Vivien Allen  
Texas Tech University |
| LS00-117 | System for value-added export of manure nitrogen and phosphorus through turfgrass sod | $149,726 | Donald Vietor, PhD  
Texas A&M University, Soil & Crop Sciences |
| LS99-100 | Systems for sustainability of alfalfa production on acid, Coastal Plain soils using various harvesting strategies | $149,750 | Vincent Haby  
Texas Agricultural Experiment Station |
| LS99-108 | System for Conserving and Adding Value to Manure Sources of Nutrients in Turf-grass Sod | $16,854 | Donald Vietor, PhD  
Texas A&M University, Soil & Crop Sciences |
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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</thead>
<tbody>
<tr>
<td>LS98-097</td>
<td>Introducing Alternative Crops Into Traditional Cotton-Grain Farming to Aid Transition To “Freedom to Farm” Agriculture</td>
<td>$114,279</td>
<td>Roland E. Roberts&lt;br&gt; Texas A&amp;M University Research and Extension Center</td>
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<tr>
<td>LS97-082</td>
<td>Sustainable Crop/Livestock Systems in the Texas High Plains</td>
<td>$222,125</td>
<td>Dr. Vivien Allen&lt;br&gt; Texas Tech University</td>
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<tr>
<td>LS95-069</td>
<td>Managing Soil Phosphorous Accumulation From Poultry Litter Application Through Vegetable/Legume Rotations</td>
<td>$135,000</td>
<td>D. R. Earhart&lt;br&gt; Texas Agricultural Experiment Station</td>
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<tr>
<td>LS92-047</td>
<td>Farm Scale Evaluation of Alternative Cotton Production Systems</td>
<td>$60,000</td>
<td>William M. Lyle&lt;br&gt; Texas Agricultural Experiment Station</td>
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<tr>
<td>LS92-048</td>
<td>Developing Environmentally Sound Poultry Litter Management Practices for Sustainable Cropping Systems</td>
<td>$140,000</td>
<td>D. R. Earhart&lt;br&gt; Texas Agricultural Experiment Station</td>
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<tr>
<td>LS89-015</td>
<td>Enhancement of the Stability of Southern Region Agroecosystems Through Profitable Transition to Sustainable Agriculture</td>
<td>$121,989</td>
<td>Keith Jones&lt;br&gt; Texas Department of Agriculture</td>
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<tr>
<td>LS88-002</td>
<td>Whole-farm Low/Reduced Input Farming Systems and Educational Program</td>
<td>$90,000</td>
<td>Hoover Carden&lt;br&gt; Prairie View A &amp; M University</td>
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<tr>
<td>LS88-010</td>
<td>Solarization and Living Mulch to Optimize Low-Input Production Systems for Small Fruits (88-87-4)</td>
<td>$80,000</td>
<td>Charles Long&lt;br&gt; Texas A &amp; M University</td>
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</table>

### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

<table>
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<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tbody>
<tr>
<td>ES20-151</td>
<td>Beekeeping Curriculum and Training for Texas Agricultural Extension Agents and 4-H Youth Leaders</td>
<td>$79,516</td>
<td>Nicole Gueck&lt;br&gt; AgriLogic Consulting, LLC&lt;br&gt; Elizabeth “Wizzie” Brown&lt;br&gt; Texas AgriLife Extension Service&lt;br&gt; Leesa Hyder&lt;br&gt; Texas Beekeepers Association&lt;br&gt; Molly Keck&lt;br&gt; Texas AgriLife Extension Service&lt;br&gt; Ashley Ralph&lt;br&gt; Texas Beekeepers Association&lt;br&gt; Mary Reed&lt;br&gt; Texas Apiary Inspection Services</td>
</tr>
<tr>
<td>ES19-147</td>
<td>Training Texas County Extension Agents and Mentor Ranchers to Improve Small Ruminant Health and Productivity Through Natural Genetic Selection Strategies</td>
<td>$76,996</td>
<td>Dr. Reid Redden&lt;br&gt; Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>ES18-142</td>
<td>Promotion and Adoption of Sustainable Agriculture Practices in Texas: Training the Trainers</td>
<td>$80,000</td>
<td>Dr. Jake Mowerr&lt;br&gt; Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>ES18-139</td>
<td>Natural Resource Management for Sustainable Agriculture Production in East Texas</td>
<td>$42,773</td>
<td>Dr. Vanessa Corriher-Olson&lt;br&gt; Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>ES17-136</td>
<td>Ranching with Wildlife: Teaching Sustainable Livestock Production Practices for Wildlife Habitat</td>
<td>$78,838</td>
<td>John Tomecek&lt;br&gt; Texas A&amp;M AgriLife Extension Service</td>
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<tr>
<td>ES13-120</td>
<td>Farming for the Future: Adopting Sustainable Agriculture Practices</td>
<td>$55,904</td>
<td>Dr. Megan Clayton&lt;br&gt; Texas A&amp;M AgriLife Extension Service</td>
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<tr>
<td>Project #</td>
<td>Project Title</td>
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<tr>
<td>FS19-312</td>
<td>Tagasaste: A new feed source for West Texas</td>
<td>$9,670</td>
<td>Malinda Beeman</td>
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<tr>
<td>FS18-306</td>
<td>Subsoiling as an Effective and Affordable Water Capture Tool</td>
<td>$9,720</td>
<td>Amanda Krause</td>
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<td>Parker Creek Ranch</td>
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<td>FS17-299</td>
<td>Organic Sweet Potato as a Commercial Crop in South Texas</td>
<td>$10,000</td>
<td>Lois Kim</td>
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<td>Farmer</td>
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<td>FS14-281</td>
<td>Organic Cultivation Methods for Asparagus as an Alternative Crop in South Texas</td>
<td>$14,736</td>
<td>Gilbert Garza</td>
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<td>Texas/Mexico Border Coalition CBO</td>
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<td>FS13-277</td>
<td>Evaluating switchgrass in marginal land as a beneficial insect habitat and as compost source for vegetable production</td>
<td>$8,379</td>
<td>Cynthia Remsing</td>
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<td>Lynn Remsing</td>
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<tr>
<td>FS12-262</td>
<td>Development of an innovative forage crop system for pasture raised swine</td>
<td>$8,303</td>
<td>Ron Luce</td>
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<td>Poppa Skinny's Farm</td>
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<td>FS10-246</td>
<td>Low Cost Geothermal Greenhouse Heating System for Southern Climates</td>
<td>$9,999</td>
<td>Tanya Miller</td>
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<td>Millican Farms, LLC</td>
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<td>FS07-219</td>
<td>Treating Soil Compaction Using Woven Weed Fabric</td>
<td>$9,886</td>
<td>Roy Riddle</td>
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<tr>
<td>FS06-205</td>
<td>Cover Crop Optimization for Sustainable Forage Systems on a Southern Dairy Farm</td>
<td>$9,872</td>
<td>Neil R. Miller</td>
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<td>World Hunger Relief, Inc.</td>
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<tr>
<td>FS06-198</td>
<td>Evaluation of Mulches for Organic Cantaloupe Production in Semi-Arid Regions</td>
<td>$9,855</td>
<td>John Chandler</td>
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<tr>
<td>FS05-190</td>
<td>Addressing Cedar Infestations - Using Animal Impact to Increase Forage Production and Improve Soil Health</td>
<td>$14,987</td>
<td>Peggy Cole Jones</td>
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<td>Holistic Resource Management of Texas, Inc</td>
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<tr>
<td>FS05-196</td>
<td>Weed Control for Row Crops Using Corrugating Linerboard/Medium Paper</td>
<td>$7,399</td>
<td>Michael E. Tolbert</td>
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<td>The Landowners Association of Texas-Tyler Chapter</td>
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<td>FS03-161</td>
<td>Sustainable Pastured Layer Research Project</td>
<td>$14,992</td>
<td>Graciela Alvardo</td>
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<td>Texas/Mexico Border Coalition Community Based Org.</td>
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<tr>
<td>FS03-174</td>
<td>Goat Range-Nutrition Performance Test</td>
<td>$13,113</td>
<td>Marvin F. Shurley</td>
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<td>Meat Goat Association</td>
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<tr>
<td>FS02-151</td>
<td>Increase Soil Organic Matter in Citrus Soils</td>
<td>$8,112</td>
<td>Jim Hoffimann</td>
</tr>
<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
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| FS01-142   | Pepitas de Ajo: permanent ground cover in garlic production                                                                                 | $14,132      | Lydia Villanueva  
Comm. Approaching Sustainability w/ Agroecology |
| FS99-088   | Internal Parasite Resistance Selection Method for Sheep                                                                                           | $4,844       | Ray Cloudt                                           |
| FS99-090   | Crop Rotation and Rotational Grazing Study                                                                                                        | $9,876       | Ken Graff                                            |
| FS98-075   | An Intensive Marketing Workshop for Growers and Ranchers                                                                                        | $7,561       | Sue Johnson  
Texas Organic Growers Association               |
| FS97-050   | Effects of Conservation Tillage on Water Quality in Southern Texas                                                                            | $8,000       | Charles Eubanks  
Cameron County Field                                |
| FS97-053   | Cool Season and Warm Season Grasses to Stabilize Erodible Soils and Increase Profitibility                                                      | $10,000      | David Kearney  
Wichita County Field Crops Committee                |
| FS96-036   | Native Warm Season Grasses As Alternative Hay Source to Annual Sorghum/Sudan Grasses on Family-Operated Goat Dairy | $9,640       | Lee B. Dexter  
White Egret Farm                                    |
| FS95-021   | Pecan IPM Using Black-Eyed Peas as a Trap Crop                                                                                                   | $4,000       | Kyle Brookesheir                                    |
| FS94-001   | Controlling Aphids with Harmonia Lady Beetle in Pecan Orchards                                                                                | $4,600       | Cindy Wise  
Texas Pecan Growers Assoc.                          |
| FS94-010   | Site Specific Applications of Seed/Fertilizer/Chemicals                                                                                          | $10,000      | Ricky & Becky Meinen                                |

**GRADUATE STUDENT GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| GS20-226   | Comparing the Effects of Forage Mix and Nutrient Management on Soil Greenhouse Gas Flux in Semi-arid Improved Pastures                             | $16,450      | Lindsey Slaughter  
Texas Tech University  
Billi Petermann  
Texas Tech University |
| GS20-227   | Texas Little Bluestem (Schizachyrium scoparium) Phenotypic Attribute Correlations to Collection Site Environment Characteristics                | $11,889      | Dr.James Muir  
Texas A&M AgriLife Research  
Kimberlee Howell  
Tarleton State University |
| GS20-229   | Cannabis sativa L. as a Feed Source in Backyard Rabbit Production                                                                                    | $16,419      | Dr.William Smith, Ph.D.  
Tarleton State University  
Kristen Jacobson  
Tarleton State University |
| GS19-198   | The Success of Organic and Other Sustainable Dual-Purpose Wheat Systems Depend on Access to Adapted Varieties                                        | $16,500      | Dr.Curtis Adams  
Texas A&M AgriLife Research  
Philip Hinson  
Tarleton State University |
| GS19-211   | Roadblocks to Success: Needs assessment of small producers in Texas                                                                               | $10,132      | Ken Mix  
Katie Tritsch  
Texas State University |
| GS19-209   | Improving Resilience, Sustainability and Nutritional Properties of Specialty Crops Using Composted Spent Coffee Grounds                           | $16,044      | David Reed  
Amanda Birnbaum  
Texas A&M University |
Investigating Controls Over Nodulation and Nitrogen Fixation in Leguminous Cover Crops in Subtropical South Texas  
Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Stephanie Kasper  
University of Texas Rio Grande Valley  
$16,500

Effects of Cumulative Cattle Trampling on Soil Bulk Density and Infiltration of Rain Water on an Annual Forage Crop Pasture  
Dr. Charles West  
Texas Tech University  
Kathryn Radick  
University of Texas Rio Grande Valley  
$9,001

Developing Suitable Cover Crop Systems for South Texas: Evaluating Different Late-Summer and Winter Cover Crop Species  
Muthu Bagavathiannan  
Spencer Samuelson  
University of Texas Rio Grande Valley  
$16,352

Agroecological methods to manage brassica pests on organic farms  
Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Madeline Marshall  
University of Texas Rio Grande Valley  
$11,000

Examining the role of bats in pest management in agroecosystems of south Texas  
Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Katharine Jones  
The University of Texas at Rio Grande Valley  
$10,223

Multifunctionality of Cover Crops in South Texas: Looking at multiple benefits of cover cropping on small farms in a subtropical climate  
Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Savannah Rugg  
University of Texas Pan-American  
$8,953

Evaluation of winter annual cover crops under multiple residue managements: Impacts on land management, soil water depletion, and cash crop productivity.  
Dr. Charles West  
Texas Tech University  
Dr. Lisa Baxter  
University of Georgia (Tifton Campus)  
$9,383

Use of Artificial Lighting to Increase Photoperiod Length for Pasture-Raised Laying Hens to Improve Egg Productivity and Quality  
Dr. Jackie Wahr mund  
University of Kentucky  
Margaret Morgan  
Texas A&M University-Commerce  
$10,997

Effects of Simulated and Insect Herbivory on Total and Protein Percipitable Phenolic Concentrations of Two Legumes  
Dr. James Muir  
Texas A&M AgriLife Research  
Tiana Blackmon  
Tarleton State University  
$9,040

Factors contributing to the economic impact of cotton fleahoppers, Pseudatomoscelis seriatus  
Micky Eubanks  
Auburn University  
Loriann Garcia  
Texas A&M University  
$9,336

Managing Climate Change on Apple Orchards  
Dr. James Veteto  
University of North Texas  
Stephen Carlson  
University of North Texas  
$9,954

Evaluating functional diversity in an organic intercropping system  
Dr. Astrid Volder  
Texas A&M University  
Jose Franco  
Texas A&M University  
$10,000

Allelopathic effects of small grain cover crops on cotton plant growth and yields  
Dr. Vivien Allen  
Texas Tech University  
Yue Li  
Texas Tech University  
$10,000

Cropping systems for sustainable nutrient management and dairy production  
Donald Vietor, PhD  
Texas A&M University, Soil & Crop Sciences  
Ronnie Schnell  
Texas A&M University, Soil & Crop Sciences  
$10,000

Cycling of composted biosolids through turfgrass sod enhances sustainability across agricultural and urban landscapes  
Donald Vietor, PhD  
Texas A&M University, Soil & Crop Sciences  
Nels Hansen  
Soil & Crop Sciences Department  
$10,000
**GS03-021** Development of Methodology to Measure Net Feed Efficiency in Bulls to Enhance Profitability and Environmental Sustainability of Beef Production

**GS02-012** Optimizing Water Use for Three Old World Bluestems in the Texas High Plains

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**On-Farm Research/Partnership Grants**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS20-138</td>
<td>Strategic Management of Legume Cover-forage Crops to Optimize Utility in a Challenging Environment</td>
<td>$20,000</td>
<td>Dr. Reagan Noland, Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>OS20-139</td>
<td>Incorporating Native Plants in Insectary Strips to Promote Insect Diversity and Belowground Beneficial Microbes</td>
<td>$20,000</td>
<td>Pushpa Soti, University of Texas Rio Grande Valley</td>
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<tr>
<td>OS19-131</td>
<td>Advancing the Frontier of Legume Cover Crops and Building Integrated System Resilience in Semi-arid West Texas</td>
<td>$15,000</td>
<td>Dr. Reagan Noland, Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>OS19-128</td>
<td>Sustainable Pasture Management in Texas: Optimizing forage production and nutrient use in various environments and soils</td>
<td>$14,298</td>
<td>James Kiniry</td>
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<tr>
<td>OS18-119</td>
<td>Supporting Alternative Crop Options Through Improved Fertility Recommendations for Canola in Central and South Texas</td>
<td>$14,811</td>
<td>Larry Redmon, Texas Cooperative Extension</td>
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<tr>
<td>OS18-121</td>
<td>Integrating Cover Crops as Potential Weed and Pest Management Strategy in Organic Vegetable Farms in South Texas</td>
<td>$15,000</td>
<td>Pushpa Soti, University of Texas Rio Grande Valley</td>
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<tr>
<td>OS17-108</td>
<td>Using Mycorrhizal Fungi to Improve Soil Health and Increase Yield in Organic Vegetable Farms</td>
<td>$14,995</td>
<td>Dr. Alexis Racelis, University of Texas - Rio Grande Valley</td>
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<tr>
<td>OS16-095</td>
<td>Deep Soil Profile Sampling of Nitrate for Residual Nitrogen Credit in Winter Wheat - Texas Blacklands</td>
<td>$15,000</td>
<td>Dr. Jake Mowrer, Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>OS14-087</td>
<td>Determining accurate nitrate level requirements in an aquaponic system.</td>
<td>$9,737</td>
<td>Dr. Joseph Masabni, Texas A&amp;M AgriLife Extension</td>
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<tr>
<td>OS14-089</td>
<td>Developing farmer-appropriate integrated pest management strategies in South Texas: The potential of push-pull technologies to regulate organic brassica pest</td>
<td>$15,000</td>
<td>Dr. Alexis Racelis, University of Texas - Rio Grande Valley</td>
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<td>OS13-072</td>
<td>Huitlacoche Production as an Alternative Crop in South Texas</td>
<td>$14,962</td>
<td>Dr. Alexis Racelis, University of Texas - Rio Grande Valley</td>
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<td>OS12-067</td>
<td>Adaptable Wide Stale Seedbed System Combining Precision Fertilizer Placement, Conservation Irrigation Management with Reduced Tillage Practices for Long Term Farm Sustainability</td>
<td>$15,000</td>
<td>Dionicio Valdez, Texas A&amp;M AgriLife Extension Service</td>
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</table>
OS10-053 BIOLOGICAL CONTROL OF SALTCEDAR ON WEST TEXAS RANCHES CONSERVES FORAGE AND WATER RESOURCES $14,965 Allen Knutson Texas AgriLife Extension Service

OS06-031 Use of Guar (Cyamopsis tetragonoloba (L.) Taub) for cover crop rotation and green manuring $15,000 Dr. Russell Wallace Texas A&M University AgriLife Extension

OS05-023 Livestock and Feedstock: Distiller’s Grain and Fuel Ethanol $15,000 Peggy Korth Water Assurance Technology Energy Resources

OS04-021 Comparison of Stockpiled Bermudagrass + Annual Ryegrass and Traditional Hay-Only Winter Feeding Practices $14,645 Larry Redmon Texas Cooperative Extension

OS02-006 Evaluation and Maintenance of Sustainable Systems for Alfalfa Production and Marketing Strategies on Coastal Plain Soils $15,000 Larry Redmon Texas Cooperative Extension

SUSTAINABLE COMMUNITY INNOVATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
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<th>Project Leaders</th>
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<tbody>
<tr>
<td>CS10-076</td>
<td>Investing in Community Linkages to Improve our Food System</td>
<td>$10,000</td>
<td>Jay Crossley Houston Tomorrow</td>
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<tr>
<td>CS10-081</td>
<td>Establishing Sustainable Agriculture &amp; Community Development in Elgin Texas</td>
<td>$10,000</td>
<td>Amy Miller City of Elgin</td>
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<tr>
<td>CS06-040</td>
<td>Building Local Food &amp; Local Communities in Western Oklahoma</td>
<td>$10,000</td>
<td>Darryl Birkenfield Ogallala Commons</td>
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<tr>
<td>CS03-012</td>
<td>Sustainable Agriculture Innovations Lead to Rural Success</td>
<td>$10,000</td>
<td>Gayla Kessinger Canutillo Independent Schoo</td>
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</table>

Total funding from the USDA SARE program to Texas $7,648,522

For further information on projects, contact Candace Pollock, Southern SARE public relations coordinator, at (770) 412-4786 or cpollock@uga.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA’s National Institute of Food and Agriculture (NIFA).