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 $360 million to more than 8,174 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: Advancing the Frontier of Sustainable Agriculture in... Texas

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 in Texas

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

$10,817,232 in total funding

132 grant projects

(since 1988)

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

Total awards: 132 grants
- 43 Research and Education
- 4 Sustainable Community Innovation
- 11 Professional Development Program
- 26 Farmer/Rancher
- 29 Graduate Student
- 19 On Farm Research/Partnership

Total funding: $10,817,232
- $9,045,269 Research and Education
- $40,000 Sustainable Community Innovation
- $814,221 Professional Development Program
- $256,338 Farmer/Rancher
- $363,004 Graduate Student
- $298,400 On Farm Research/Partnership

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.

Vanessa Corriher-Olson
Texas A&M University
(903) 834-6191
vacorriher@ag.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 $10,817,232 grants to support 131 projects, including but not limited to, 42 research and/or education projects, 11 professional development projects and 26 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>LS22-364</td>
<td>Development of Sustainable Organic Rice Ratoon Production Systems in the Southern US</td>
<td>$340,000</td>
<td>Dr. Tanumoy Bera, Texas A&amp;M AgriLife Research, Dr. Fugen Dou, Texas A&amp;M University, Dr. Lloyd T. Wilson, Texas A&amp;M University, Dr. Yubin Yang, Texas A&amp;M University, Dr. Xin-Gen (Shane) Zhou, Texas A&amp;M University</td>
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<tr>
<td>LS22-371</td>
<td>Evaluating Cover Crops for Weed Reduction throughout the Southern States</td>
<td>$360,000</td>
<td>Justin Duncan, National Center for Appropriate Technology, Dorathy Barker, Operation Spring Plant (OSP), Jahi Chappell, Southeastern African American Farmers Organic Network (SAAFON)</td>
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<tr>
<td>LS22-372</td>
<td>Sustainable Soil Resource Management and Produce Marketing on Resource-limited Urban Farms</td>
<td>$371,000</td>
<td>Dr. Omar Harvey, Texas Christian University, Dr. Esayas Gebremichael, Texas Christian University, Dr. Stacy Grau, Texas Christian University, Jesse Herrera, CoAct</td>
</tr>
<tr>
<td>LS22-373</td>
<td>Converting to alternative annual and perennial forage based systems for sustainable grazing in semi-arid environments</td>
<td>$371,000</td>
<td>Dr. Paul DeLaune, Texan A&amp;M AgriLife Research / Soil and Crop Sciences, Francisco Abello, Texas A&amp;M AgriLife Extension Service, Emi Kimura, Dr. Dariusz Malinowski, Texas AgriLife Research, Dr. Marco Palma, Texas A&amp;M AgriLife Research, Dr. William Pinchak, Texas A&amp;M AgriLife Research</td>
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<tr>
<td>Project Number</td>
<td>Title</td>
<td>Funding</td>
<td>Principal Investigators</td>
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</tbody>
</table>
| LS22-375       | Sheep integration for diverse and resilient organic cotton systems   | $371,000 | Dr. Reagan Noland
                  |                                                          |         | Texas A&M AgriLife Extension Service                                                     |
|                |                                                          |         | Dr. Justin Benavidez
                  |                                                          |         | Texas A&M AgriLife Extension                                                             |
|                |                                                          |         | Caitlyn Cooper-Norris
                  |                                                          |         | Texas Tech University                                                                   |
|                |                                                          |         | Dr. Holli Leggette
                  |                                                          |         | Texas A&M University                                                                    |
|                |                                                          |         | Dr. Reid Redden
                  |                                                          |         | Texas A&M AgriLife Extension                                                             |
|                |                                                          |         | Dr. Cody Scott
                  |                                                          |         | Angelo State University                                                                  |
|                |                                                          |         | Bob Whitney
                  |                                                          |         | Texas A&M AgriLife Extension                                                             |
| LS22-382       | Development and Implementation of the Agriculture Community         | $35,667 | Rene’ McCracken
                  | Education (ACE) On-line Learning Modules for Northeast Texas Limited Resource Producers |         | Northeast Texas Community College                                                      |
| LS21-345       | Soil for Water                                                      | $1,000,000 | Mike Morris
                  |                                                          |         | National Center for Appropriate Technology                                               |
|                |                                                          |         | Eric Bendfeldt
                  |                                                          |         | Virginia Cooperative Extension                                                          |
|                |                                                          |         | Dr. Dirk Philipp
                  |                                                          |         | University of Arkansas                                                                  |
|                |                                                          |         | Dr. Rocky Lemus
                  |                                                          |         | Mississippi State University, Department of Plant and Soil Sciences                     |
| LS20-341       | Assessing Water Use Efficiency, Soil Health, and Pollinators within | $299,208 | Dr. Scott Longing
                  | a Transition from Irrigation to Dryland Management in the Texas High Plains             |         | Texas Tech University                                                                  |
| LS20-343       | Toward Culturally Responsive Disaster Management for Limited         | $300,000 | Dr. Noel Estwick
                  | Resource Producers: The Role of Person, Place and Professional Agencies                 |         | Prairie View A&M University                                                            |
|                |                                                          |         | Dr. Nelson Daniels
                  |                                                          |         | Prairie View A&M University                                                            |
|                |                                                          |         | Dr. Marco Robinson
                  |                                                          |         | Prairie View A&M University                                                            |
| LS19-313       | Organic and Conventional Agriculture: Learning from Each Other to   | $299,667 | Dr. Katie Lewis
                  | Promote Soil Health and Economic Viability in West Texas                               |         | Texas A&M AgriLife Research                                                            |
| LS19-312       | Regional Food Transportation for Texas Farmers                     | $299,311 | Caroline Krejci
                  |                                                          |         | The University of Texas at Arlington                                                   |
| LS18-288       | A Southern Regional Water Conference to Improve Producer Adoption   | $48,000 | Dr. Diane Boellstorff
                  | of Sustainable Water Management Practices                                              |         | Texas A&M AgriLife Extension Service                                                   |
| LS17-277       | Indicators and Soil Conservation Practices for Soil Health          | $312,000 | Dr. Barbara Bellows
                  | and Carbon Sequestration                                                               |         | Tarleton State University/ TIAER                                                        |
| LS17-283       | Developing Organic Cropping Systems for Grain Production in the     | $276,000 | Ronnie Schnell
                  | Texas High Plains                                                                       |         | Texas A&M University, Soil & Crop Sciences                                              |
| LS17-286       | Long-term Agroecosystems Research and Adoption in the Texas         | $300,000 | Dr. Charles West
                  | Southern High Plains - Phase III                                                       |         | Texas Tech University                                                                  |
| LS16-275       | Evaluating Organic Pest Control Products for Strawberries in        | $246,413 | Dr. Russell Wallace
                  | Combination with High and Low Tunnels for Limited Resource Farmers in the Mid-South    |         | Texas A&M University AgriLife Extension                                                 |
| LS16-271  | Intensifying Cropping Systems in Semi-Arid Environments to Enhance Soil Health and Profitability | $232,827 | Dr. Paul DeLaune  
Texas A&M AgriLife Research / Soil and Crop Sciences |
| LS14-261  | Long-term AgroEcosystems Research and Adoption in the Texas Southern High Plains – Phase II | $300,000 | Dr. Charles West  
Texas Tech University |
| 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 Semi-arid 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 |
| LS05-175  | Sustainable and profitable control of invasive plant species by small ruminants | $178,000 | Dr. James Muir  
Texas A&M AgriLife Research |
| LS05-214  | SARE Research and Education Program Impacts and Diffusion | $31,526 | Marari Suvedi  
CARRS Center for Evaluative Studies |
| 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 |
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
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</thead>
</table>
| 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                                                                 |
| LS98-097 | Introducing Alternative Crops Into Traditional Cotton-Grain Farming to Aid Transition To “Freedom to Farm” Agriculture | $114,279     | Roland E. Roberts  
Texas A&M University Research and Extension Center                                                                 |
| LS97-082 | Sustainable Crop/Livestock Systems in the Texas High Plains                   | $222,125     | Dr. Vivien Allen  
Texas Tech University                                                                 |
| LS95-069 | Managing Soil Phosphorous Accumulation From Poultry Litter Application Through Vegetable/Legume Rotations | $135,000     | D. R. Earhart  
Texas Agricultural Experiment Station                                                                                      |
| LS92-047 | Farm Scale Evaluation of Alternative Cotton Production Systems                | $60,000      | William M. Lyle  
Texas Agricultural Experiment Station                                                                                     |
Texas Agricultural Experiment Station                                                                                     |
| LS89-015 | Enhancement of the Stability of Southern Region Agroecosystems Through Profitable Transition to Sustainable Agriculture | $121,989     | Keith Jones  
Texas Department of Agriculture                                                                                           |
| LS88-002 | Whole-farm Low/Reduced Input Farming Systems and Educational Program          | $90,000      | Hoover Carden  
Prairie View A & M University                                                                                                |
| LS88-010 | Solarization and Living Mulch to Optimize Low-Input Production Systems for Small Fruits (88-87-4) | $80,000      | Charles Long  
Texas A & M University                                                                                                    |
| SPDP22-09 | Carbon Farm Planning to Promote Sustainable Agriculture in Texas               | $79,529      | Kara Kroeger  
National Center for Appropriate Technology                                                                                     |
| SPDP22-10 | Certificate Program for Sustainable Cotton Production for County Agents       | $31,034      | Steve Hague  
Texas A&M University - Department of Soil & Crop Sciences  
Dr. Jourdan Bell  
Texas A&M AgriLife Research and Extension  
Dr. Seth Byrd  
Oklahoma State University  
Dr. Matthew Foster  
LSU AgCenter  
Emi Kimura  
Murilo Maeda  
Texas A&M AgriLife Extension  
Dr. Josh McGinty  
Texas A&M AgriLife Extension  
Dr. Ben McKnight  
Texas A&M AgriLife Extension  
Dr. Jake Mowerer  
Texas A&M AgriLife Extension  
Dr. Reagan Noland  
Texas A&M AgriLife Extension  
Dr. Scott Nolte  
Texas A&M AgriLife Extension                                                                                                    |
| PDP21-06 | Sustainable Aquatic Habitat Management on Agricultural Lands                  | $60,000      | Brittany Chesser  
Texas A&M AgriLife Extension Service  
Mikayla Killam  
Texas A&M University                                                                                                    |
ES20-151 Beekeeping Curriculum and Training for Texas Agricultural Extension Agents and 4-H Youth Leaders $79,516 Nicole Gueck AgriLogic Consulting, LLC Elizabeth "Wizzie" Brown Texas AgriLife Extension Service Leesa Hyder Texas Beekeepers Association Molly Keck Texas AgriLife Extension Service Ashley Ralph Texas Beekeepers Association Mary Reed Texas Apiary Inspection Services

ES19-147 Training Texas County Extension Agents and Mentor Ranchers to Improve Small Ruminant Health and Productivity Through Natural Genetic Selection Strategies $76,996 Dr. Reid Redden Texas A&M AgriLife Extension

ES18-139 Natural Resource Management for Sustainable Agriculture Production in East Texas $42,773 Dr. Vanessa Corriher-Olson Texas A&M AgriLife Extension

ES18-142 Promotion and Adoption of Sustainable Agriculture Practices in Texas: Training the Trainers $80,000 Dr. Jake Mowrer Texas A&M AgriLife Extension


ES13-120 Farming for the Future: Adopting Sustainable Agriculture Practices $55,904 Dr. Megan Clayton Texas A&M AgriLife Extension Service, Department of Rangeland, Wildlife, and Fisheries Management


LST94-002 Environmentally and Economically Sustainable Use of Rangeland $72,570 James F. Cadenhead Texas A & M Research and Extension

FARMER/RANCHER GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
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<tbody>
<tr>
<td>FS22-338</td>
<td>New Design of Two Queen Horizontal Honey Bee Hive Bases for Commercial and Small Scale Beekeeping Operations</td>
<td>$14,662</td>
<td>Daniel Brantner Texas Honey Company</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 Marfa Maid Dairy</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 Parker Creek Ranch</td>
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<tr>
<td>FS17-299</td>
<td>Organic Sweet Potato as a Commercial Crop in South Texas</td>
<td>$10,000</td>
<td>Lois Kim Farmer</td>
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<tr>
<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 Texas/Mexico Border Coalition CBO</td>
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<tr>
<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 Lynn Remsing</td>
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<tr>
<td>Project ID</td>
<td>Title</td>
<td>Grant Amount</td>
<td>Principal Investigator</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 Poppa Skinny’s Farm</td>
</tr>
<tr>
<td>FS10-246</td>
<td>Low Cost Geothermal Greenhouse Heating System for Southern Climates</td>
<td>$9,999</td>
<td>Tanya Miller Millican Farms, LLC</td>
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<tr>
<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>FS06-198</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>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 World Hunger Relief, Inc.</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 Holistic Resource Management of Texas, Inc</td>
</tr>
<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 The Landowners Association of Texas-Tyler Chapter</td>
</tr>
<tr>
<td>FS03-161</td>
<td>Sustainable Pastured Layer Research Project</td>
<td>$14,992</td>
<td>Graciela Alvarado 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 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>
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<tr>
<td>FS01-142</td>
<td>Pepitas de Ajo: permanent ground cover in garlic production</td>
<td>$14,132</td>
<td>Lydia Villanueva Comm. Approaching Sustainability w/ Agroecology</td>
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<tr>
<td>FS99-088</td>
<td>Internal Parasite Resistance Selection Method for Sheep</td>
<td>$4,844</td>
<td>Ray Cloudt</td>
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<tr>
<td>FS99-090</td>
<td>Crop Rotation and Rotational Grazing Study</td>
<td>$9,876</td>
<td>Ken Graff</td>
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<tr>
<td>FS98-075</td>
<td>An Intensive Marketing Workshop for Growers and Ranchers</td>
<td>$7,561</td>
<td>Sue Johnson Texas Organic Growers Association</td>
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<tr>
<td>FS97-050</td>
<td>Effects of Conservation Tillage on Water Quality in Southern Texas</td>
<td>$8,000</td>
<td>Charles Eubanks Cameron County Field</td>
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<tr>
<td>FS97-053</td>
<td>Cool Season and Warm Season Grasses to Stabilize Erodible Soils and Increase Profitability</td>
<td>$10,000</td>
<td>David Kearney Wichita County Field Crops Committee</td>
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<tr>
<td>FS96-036</td>
<td>Native Warm Season Grasses As Alternative Hay Source to Annual Sorghum/Sudan Grasses on Family-Operated Goat Dairy</td>
<td>$9,640</td>
<td>Lee B. Dexter White Egret Farm</td>
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<tr>
<td>FS95-021</td>
<td>Pecan IPM Using Black-Eyed Peas as a Trap Crop</td>
<td>$4,000</td>
<td>Kyle Brooksheir</td>
</tr>
</tbody>
</table>
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>
| GS22-260  | Quantifying the Risks of Pesticide Exposure to Squash Bee Behavior and Pollination Services | $16,500      | Dr. Shalene Jha  
University of Texas at Austin  
Leeah Richardson  
University of Texas at Austin |
| GS22-261  | Climate Change Impacts on the U.S. Livestock Sector and Possible Adaptations   | $16,500      | Dr. Bruce A. McCarl  
Texas A&M University  
Muxi Cheng  
Texas A&M University |
| GS22-273  | Native Texas Perennial Bunchgrass for Bioenergy Feedstock and Ruminant Nutrition | $14,300      | Dr. James Muir  
Texas A&M AgriLife Research  
Olivia Lasater  
Tarleton State University |
| GS21-241  | Harnessing the Wild Relatives of Rice for Novel Adaptive Phenotypes: Genetics and breeding for agricultural sustainability beyond the Green Revolution | $16,500      | Dr. Benildo Reyes  
Texas Tech University  
Swarupa Mandal  
Texas Tech University |
| GS21-248  | African American Absentee Landowners in Houston and Their Knowledge of Rural Land Ownership Conservation Practices: A needs assessment | $14,532      | Dr. Chanda Elbert  
Texas A&M University  
Ashley Pellerin  
Texas A&M University |
| GS21-251  | Effectiveness of Tarping and Tillage as Weed Management Strategies in South Texas | $16,499      | Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Christopher De la Rosa  
University of Texas Rio Grande Valley |
| 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. Frank Owsley  
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. Bill Pinchak  
Texas A&M AgriLife Research  
Philip Hinson  
Texas A&M University |
| GS19-211  | Roadblocks to Success: Needs assessment of small producers in Texas          | $10,132      | Dr. Ken Mix  
Texas State University  
Katie Tritsch  
Texas State University |
| GS19-209  | Improving Resilience, Sustainability and Nutritional Properties of Specialty Crops Using Composted Spent Coffee Grounds | $16,044      | Dr. David Reed  
Texas A&M University  
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  

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  
Dr. Kathryn Radicke-Vanderburg  
West Texas A&M University / Purdue Global University/ Unity College  

Developing Suitable Cover Crop Systems for South Texas: Evaluating Different Late-Summer and Winter Cover Crop Species  

Muthu Bagavathiannan  
Texas A&M University  
Spencer Samuelson  
Corteva Agriscience  

Agroecological methods to manage brassica pests on organic farms  

Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Madeline Marshall  
Corteva Agriscience  

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  

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  

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)  

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  

Use of Artificial Lighting to Increase Photoperiod Length for Pasture-Raised Laying Hens to Improve Egg Productivity and Quality  

Dr. Jackie Wahrmund  
University of Kentucky  
Margaret Morgan  
Texas A&M University-Commerce  

Factors contributing to the economic impact of cotton flea hoppers, Pseudatomoscelis seriatus  

Micky Eubanks  
Auburn University  
Loriann Garcia  
Texas A&M University  

Managing Climate Change on Apple Orchards  

Dr. James Veteto  
University of North Texas  
Stephen Carlson  
University of North Texas  

Evaluating functional diversity in an organic intercropping system  

Dr. Astrid Volder  
Texas A&M University  
Jose Franco  
Texas A&M University  

Allelopathic effects of small grain cover crops on cotton plant growth and yields  

Dr. Vivien Allen  
Texas Tech University  
Yue Li  
Texas Tech University  

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  

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
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tr>
<td>OS22-156</td>
<td>Promoting Water Sustainable Agriculture by Combining In-situ Soil Moisture and</td>
<td>$19,987</td>
<td>Dr. Ali Ajaz&lt;br&gt; Texas Water Resources Institute, Texas A&amp;M AgriLife Extension</td>
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<td>Remote Sensing Data for Irrigation Scheduling</td>
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<td>OS21-140</td>
<td>Introducing Beneficial Entomopathogenic Nematodes for Biological Control and</td>
<td>$20,000</td>
<td>Anjel Helms&lt;br&gt; Texas A&amp;M University</td>
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<td></td>
<td>Enhanced Plant Resistance to Improve Pest Management in Cucurbit Crops</td>
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<td>OS20-138</td>
<td>Strategic Management of Legume Cover-fORAGE Crops to Optimize Utility in a</td>
<td>$20,000</td>
<td>Dr. Reagan Noland&lt;br&gt; Texas A&amp;M AgriLife Extension</td>
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<td></td>
<td>Challenging Environment</td>
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<td>OS20-139</td>
<td>Incorporating Native Plants in Insectary Strips to Promote Insect Diversity</td>
<td>$20,000</td>
<td>Dr. Pushpa Soti&lt;br&gt; University of Texas Rio Grande Valley</td>
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<td></td>
<td>and Belowground Beneficial Microbes</td>
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<td>OS19-128</td>
<td>Sustainable Pasture Management in Texas: Optimizing forage production and</td>
<td>$14,298</td>
<td>Dr. James Kiniry&lt;br&gt; usda-ars</td>
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<td>nutrient use in various environments and soils</td>
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<td>OS19-131</td>
<td>Advancing the Frontier of Legume Cover Crops and Building Integrated System</td>
<td>$15,000</td>
<td>Dr. Reagan Noland&lt;br&gt; Texas A&amp;M AgriLife Extension</td>
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<td>Resilience in Semi-arid West Texas</td>
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<td>OS18-119</td>
<td>Supporting Alternative Crop Options Through Improved Fertility Recommendations</td>
<td>$14,811</td>
<td>Dr. Fernando Guellen-Portal&lt;br&gt; Sustainable Oils/Global Clean Energy Holdings</td>
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<td>for Canola in Central and South Texas</td>
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<tr>
<td>OS18-121</td>
<td>Integrating Cover Crops as Potential Weed and Pest Management Strategy in</td>
<td>$15,000</td>
<td>Dr. Pushpa Soti&lt;br&gt; University of Texas Rio Grande Valley</td>
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<td>Organic Vegetable Farms in South Texas</td>
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<td>OS17-108</td>
<td>Using Mycorrhizal Fungi to Improve Soil Health and Increase Yield in Organic</td>
<td>$14,995</td>
<td>Dr. Alexis Racelis&lt;br&gt; University of Texas - Rio Grande Valley</td>
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<td>OS16-095</td>
<td>Deep Soil Profile Sampling of Nitrate for Residual Nitrogen Credit in Winter</td>
<td>$15,000</td>
<td>Dr. Jake Mowrer&lt;br&gt; Texas A&amp;M Agrilife Extension</td>
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<td>Wheat - Texas Blacklands</td>
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<td>OS14-087</td>
<td>Determining accurate nitrate level requirements in an aquaponic system.</td>
<td>$9,737</td>
<td>Dr. JOSEPH MASABNI&lt;br&gt; Texas A&amp;M</td>
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<td>OS14-089</td>
<td>Developing farmer-appropriate integrated pest management strategies in South</td>
<td>$15,000</td>
<td>Dr. Alexis Racelis&lt;br&gt; University of Texas - Rio Grande Valley</td>
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<td></td>
<td>Texas: The potential of push-pull technologies to regulate organic brassica</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&lt;br&gt; University of Texas - Rio Grande Valley</td>
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OS12-067  Adaptable Wide Stale Seedbed System Combining Precision Fertilizer Placement, Conservation Irrigation Management with Reduced Tillage Practices for Long Term Farm Sustainability  $15,000  Dionicio Valdez  
Texas A&M AgriLife Extension Service

OS10-053  BIOLOGICAL CONTROL OF SALTCEDAR ON WEST TEXAS RANCHES CONSERVES FORAGE AND WATER RESOURCES  $14,965  Allen Knutson  
Texas AgriLife Extension Service (retired)

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**

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<th>Project #</th>
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<tr>
<td>CS10-076</td>
<td>Investing in Community Linkages to Improve our Food System</td>
<td>$10,000</td>
<td>Jay Crossley</td>
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<td>Houston Tomorrow</td>
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<td>CS10-081</td>
<td>Establishing Sustainable Agriculture &amp; Community Development in Elgin Texas</td>
<td>$10,000</td>
<td>Amy Miller</td>
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<td>CS06-040</td>
<td>Building Local Food &amp; Local Communities in Western Oklahoma</td>
<td>$10,000</td>
<td>Darryl Birkenfield</td>
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<td>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</td>
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<td>Canutillo Independent Schoo</td>
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**Total funding from the USDA SARE program to Texas**

$10,817,232

For further information on projects, contact 770-412-4787 or ssare@uga.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA’s National Institute of Food and Agriculture (NIFA).