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 8,145 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, granteeproduced information products and other educational materials.

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SARE in Texas

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

$10,802,932 in total funding

131 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: 131 grants

43 Research and Education
4 Sustainable Community Innovation
11 Professional Development Program
26 Farmer/Rancher
28 Graduate Student
19 On Farm Research/Partnership

Total funding: $10,802,932

$9,045,269 Research and Education
$40,000 Sustainable Community Innovation
$814,221 Professional Development Program
$256,338 Farmer/Rancher
$348,704 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 $10,802,932 grants to support 130 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>
</table>
| LS22-364   | Development of Sustainable Organic Rice Ratoon Production Systems in the Southern US | $340,000    | Dr. Tanumoy Bera  
Texas A&M AgriLife Research  
Dr. Fugen Dou  
Texas A&M University  
Dr. Lloyd T. Wilson  
Texas A&M University  
Dr. Yubin Yang  
Texas A&M University  
Dr. Xin-Gen (Shane) Zhou  
Texas A&M University |
| LS22-371   | Evaluating Cover Crops for Weed Reduction throughout the Southern States       | $360,000    | Justin Duncan  
National Center for Appropriate Technology  
Dorothy Barker  
Operation Spring Plant (OSP)  
Jahi Chappell  
Southeastern African American Farmers Organic Network (SAAFON) |
| LS22-372   | Sustainable Soil Resource Management and Produce Marketing on Resource-limited Urban Farms | $371,000    | Dr. Omar Harvey  
Texas Christian University  
Dr. Esayas Gebremichael  
Texas Christian University  
Dr. Stacy Grau  
Texas Christian University  
Jesse Herrera  
CoAct |
| LS22-373   | Converting to alternative annual and perennial forage based systems for sustainable grazing in semi-arid environments | $371,000    | Dr. Paul DeLaune  
Texas A&M AgriLife Research / Soil and Crop Sciences  
Francisco Abello  
Texas A&M AgriLife Extension Service  
Emi Kimura  
Dr. Dariusz Malinowski  
Texas AgriLife Research  
Dr. Marco Palma  
Texas A&M AgriLife Research  
Dr. William Pinchak  
Texas A&M AgriLife Research |
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<tr>
<th>Project Code</th>
<th>Project Title</th>
<th>Budget</th>
<th>Principal Investigators</th>
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</table>
| LS22-375     | Sheep integration for diverse and resilient organic cotton systems            | $371,000 | Dr. Reagan Noland (Texas A&M AgriLife Extension)  
                              |                                                 |        | Dr. Justin Benavidez (Texas A&M AgriLife Extension Service)  
                              |                                                 |        | 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) |
| 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 a Transition from Irrigation to Dryland Management in the Texas High Plains | $299,208 | Dr. Scott Longing (Texas Tech University)  
                              |                                                 |        | Dr. Veronica Acosta-Martinez (USDA-ARS) |
| LS20-343     | Toward Culturally Responsive Disaster Management for Limited Resource Producers: The Role of Person, Place and Professional Agencies | $300,000 | Dr. Noel Estwick (Prairie View A&M University)  
                              |                                                 |        | Dr. Nelson Daniels (Prairie View A&M University)  
<pre><code>                          |                                                 |        | Dr. Marco Robinson (Prairie View A&amp;M University) |
</code></pre>
<p>| LS19-313     | Organic and Conventional Agriculture: Learning from Each Other to Promote Soil Health and Economic Viability in West Texas | $299,667 | Dr. Katie Lewis (Texas A&amp;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 of Sustainable Water Management Practices | $48,000 | Dr. Diane Boellstorff (Texas A&amp;M AgriLife Extension Service) |
| LS17-277     | Indicators and Soil Conservation Practices for Soil Health and Carbon Sequestration | $312,000 | Dr. Barbara Bellows (Tarleton State University/ TIAER) |
| LS17-283     | Developing Organic Cropping Systems for Grain Production in Texas             | $276,000 | Ronnie Schnell (Texas A&amp;M University, Soil &amp; Crop Sciences) |
| LS17-286     | Long-term Agroecosystems Research and Adoption in the Texas Southern High Plains - Phase III | $300,000 | Dr. Charles West (Texas Tech University) |
| LS16-275     | Evaluating Organic Pest Control Products for Strawberries in Combination with High and Low Tunnels for Limited Resource Farmers in the Mid-South | $246,413 | Dr. Russell Wallace (Texas A&amp;M University AgriLife Extension) |</p>
<table>
<thead>
<tr>
<th>Project Code</th>
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<th>Funding Amount</th>
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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</td>
<td>Texan A&amp;M AgriLife Research / Soil and Crop Sciences</td>
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<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</td>
<td>Texas Tech University</td>
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<td>LS14-264</td>
<td>Beyond Fresh: Expanding Markets for Sustainable Value-added Food Products in Texas</td>
<td>$220,000</td>
<td>Mike Morris</td>
<td>National Center for Appropriate Technology</td>
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<td>LS12-249</td>
<td>Improving Soil Quality to Increase Yield and Reduce Diseases in Organic Rice Production</td>
<td>$225,000</td>
<td>Fugen Dou</td>
<td>Texas A&amp;M AgriLife Research</td>
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<td>LS11-238</td>
<td>Long-term AgroEcosystems Research and Adoption in the Texas Southern High Plains – Phase I</td>
<td>$329,999</td>
<td>Dr. Charles West</td>
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<td>Philip Brown</td>
<td>Texas Tech University</td>
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<td>LS10-229</td>
<td>Integrated Crop and Livestock Systems for Enhanced Soil Carbon Sequestration and Microbial Diversity</td>
<td>$160,000</td>
<td>Dr. Jennifer Moore-Kucera</td>
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<td>in the Semiarid Texas High Plains</td>
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<td>LS10-236</td>
<td>Traceability in Specialty Crop Production and Supply Chains: Distilling a Research and Extension</td>
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<td>Kathryn Boys</td>
<td>Virginia Tech</td>
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<td>Kathryn Boys</td>
<td>Clemson University</td>
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<td>LS08-202</td>
<td>Crop-livestock Systems for Sustainable High Plains Agriculture</td>
<td>$200,000</td>
<td>Dr. Vivien Allen</td>
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<td>LS08-208</td>
<td>Marketing of locally produced sustainable animal fiber products</td>
<td>$140,000</td>
<td>John Bernard</td>
<td>University of Delaware</td>
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<td></td>
<td></td>
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<td>Hikaru Hanawa Peterson</td>
<td>Kansas State University</td>
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<td>Gwendolyn Hustvedt</td>
<td>Texas State University</td>
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<td>LS07-201</td>
<td>Pigeon pea: a multipurpose, drought resistant forage, grain and vegetable crop for sustainable southern</td>
<td>$200,000</td>
<td>Dr. John Sloan</td>
<td>Texas AgriLife Research</td>
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<td>LS05-175</td>
<td>Sustainable and profitable control of invasive plant species by small ruminants</td>
<td>$178,000</td>
<td>Dr. James Muir</td>
<td>Texas A&amp;M AgriLife Research</td>
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<td>LS05-214</td>
<td>SARE Research and Education Program Impacts and Diffusion</td>
<td>$31,526</td>
<td>Marari Suvedi</td>
<td>CARRS Center for Evaluative Studies</td>
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<td>LS03-144</td>
<td>Expanding the Marketing Opportunities for Organic Growers in Texas</td>
<td>$19,924</td>
<td>Douglas Constance</td>
<td>Sam Houston State University</td>
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<td>LS03-150</td>
<td>Sustainable and profitable control of invasive species by browsing goats on small farms</td>
<td>$14,199</td>
<td>Dr. James Muir</td>
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<td>LS02-131</td>
<td>Forage and Livestock Systems for Sustainable High Plains Agriculture</td>
<td>$251,805</td>
<td>Dr. Vivien Allen</td>
<td>Texas Tech University</td>
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<td>LS00-117</td>
<td>System for value-added export of manure nitrogen and phosphorus through turfgrass sod</td>
<td>$149,726</td>
<td>Donald Vietor, PhD</td>
<td>Texas A&amp;M University, Soil &amp; Crop Sciences</td>
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<td>LS99-100</td>
<td>Systems for sustainability of alfalfa production on acid, Coastal Plain soils using various harvesting</td>
<td>$149,750</td>
<td>Vincent Haby</td>
<td>Texas Agricultural Experiment Station</td>
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<tr>
<td>Project #</td>
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<td>SPDP22-09</td>
<td>Carbon Farm Planning to Promote Sustainable Agriculture in Texas</td>
<td>$79,529</td>
<td>Kara Kroeger&lt;br&gt;National Center for Appropriate Technology</td>
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<tr>
<td>SPDP22-10</td>
<td>Certificate Program for Sustainable Cotton Production for County Agents</td>
<td>$31,034</td>
<td>Steve Hague&lt;br&gt;Texas A&amp;M University - Department of Soil &amp; Crop Sciences&lt;br&gt;Dr. Jourdan Bell&lt;br&gt;Texas A&amp;M AgriLife Research and Extension&lt;br&gt;Dr. Seth Byrd&lt;br&gt;Oklahoma State University&lt;br&gt;Dr. Matthew Foster&lt;br&gt;LSU AgCenter&lt;br&gt;Emi Kimura&lt;br&gt;Murilo Maeda&lt;br&gt;Brittany Chesser&lt;br&gt;Mikayla Killam&lt;br&gt;Texas A&amp;M University</td>
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<tr>
<td>PDP21-06</td>
<td>Sustainable Aquatic Habitat Management on Agricultural Lands</td>
<td>$60,000</td>
<td>Britney Chesser&lt;br&gt;Texas A&amp;M AgriLife Extension Service&lt;br&gt;Mikayla Killam&lt;br&gt;Texas A&amp;M University</td>
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</tbody>
</table>
### Beekeeping Curriculum and Training

**Project #**: ES20-151  
**Project Title**: Beekeeping Curriculum and Training for Texas Agricultural Extension Agents and 4-H Youth Leaders  
**SARE Support**: $79,516  
**Project Leaders**:  
- 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

### Training Texas County Extension Agents and Mentor Ranchers to Improve Small Ruminant Health and Productivity Through Natural Genetic Selection Strategies

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

### Natural Resource Management for Sustainable Agriculture Production in East Texas

**Project #**: ES18-139  
**Project Title**: Natural Resource Management for Sustainable Agriculture Production in East Texas  
**SARE Support**: $42,773  
**Project Leaders**:  
- Dr. Vanessa Corriher-Olson  
- Texas A&M AgriLife Extension

### Promotion and Adoption of Sustainable Agriculture Practices in Texas: Training the Trainers

**Project #**: ES18-142  
**Project Title**: Promotion and Adoption of Sustainable Agriculture Practices in Texas: Training the Trainers  
**SARE Support**: $80,000  
**Project Leaders**:  
- Dr. Jake Mower  
- Texas A&M Agrilife Extension

### Ranching with Wildlife: Teaching Sustainable Livestock Production Practices for Wildlife Habitat

**Project #**: ES17-136  
**Project Title**: Ranching with Wildlife: Teaching Sustainable Livestock Production Practices for Wildlife Habitat  
**SARE Support**: $78,838  
**Project Leaders**:  
- John Tomecek  
- Texas A&M AgriLife Extension Service

### Farming for the Future: Adopting Sustainable Agriculture Practices

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

### Achieving Rangeland Sustainability Through Total Resource Management

**Project #**: ES99-045  
**Project Title**: Achieving Rangeland Sustainability Through Total Resource Management  
**SARE Support**: $157,061  
**Project Leaders**:  
- William Fox, Ph.D.  
- Texas Cooperative Extension
  - C. Wayne Hanselka, Ph.D.  
  - Texas Cooperative Extension

### Environmentally and Economically Sustainable Use of Rangeland

**Project #**: LST94-002  
**Project Title**: Environmentally and Economically Sustainable Use of Rangeland  
**SARE Support**: $72,570  
**Project Leaders**:  
- 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>
<th>Project Leaders</th>
</tr>
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</table>
| FS22-338  | New Design of Two Queen Horizontal Honey Bee Hive Bases for Commercial and Small Scale Beekeeping Operations | $14,662 | Daniel Brantner  
- Texas Honey Company |
| FS19-312  | Tagasaste: A new feed source for West Texas | $9,670 | Malinda Beeman  
- Marfa Maid Dairy |
| FS18-306  | Subsoiling as an Effective and Affordable Water Capture Tool | $9,720 | Amanda Krause  
- Parker Creek Ranch |
| FS17-299  | Organic Sweet Potato as a Commercial Crop in South Texas | $10,000 | Lois Kim  
- Farmer |
| FS14-281  | Organic Cultivation Methods for Asparagus as an Alternative Crop in South Texas | $14,736 | Gilbert Garza  
- Texas/Mexico Border Coalition CBO |
| FS13-277  | Evaluating switchgrass in marginal land as a beneficial insect habitat and as compost source for vegetable production | $8,379 | Cynthia Remsing  
- Lynn Remsing |
<table>
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<tr>
<th>Project Code</th>
<th>Project Title</th>
<th>Funding</th>
<th>Principal Investigator</th>
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<td>FS12-262</td>
<td>Development of an innovative forage crop system</td>
<td>$8,303</td>
<td>Ron Luce</td>
<td>Poppa Skinny's Farm</td>
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<td>for pasture raised swine</td>
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<td>FS10-246</td>
<td>Low Cost Geothermal Greenhouse Heating System for</td>
<td>$9,999</td>
<td>Tanya Miller</td>
<td>Millican Farms, LLC</td>
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<td>Southern Climates</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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<td>FS06-198</td>
<td>Evaluation of Mulches for Organic Cantaloupe</td>
<td>$9,855</td>
<td>John Chandler</td>
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<td>Production in Semi-Arid Regions</td>
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<td>FS06-205</td>
<td>Cover Crop Optimization for Sustainable Forage</td>
<td>$9,872</td>
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<td>Systems on a Southern Dairy Farm</td>
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<td>FS05-190</td>
<td>Addressing Cedar Infestations - Using Animal</td>
<td>$14,987</td>
<td>Peggy Cole Jones</td>
<td>Holistic Resource Management of Texas, Inc</td>
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<td>Impact to Increase Forage Production and Improve</td>
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<td>Soil Health</td>
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<td>FS05-196</td>
<td>Weed Control for Row Crops Using corrugating</td>
<td>$7,399</td>
<td>Michael E. Tolbert</td>
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<td>FS03-161</td>
<td>Sustainable Pastured Layer Research Project</td>
<td>$14,992</td>
<td>Graciela Alvarado</td>
<td>Texas/Mexico Border Coalition Community</td>
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<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>FS02-151</td>
<td>Increase Soil Organic Matter in Citrus Soils</td>
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<td>FS01-142</td>
<td>Pepitas de Ajo: permanent ground cover in garlic</td>
<td>$14,132</td>
<td>Lydia Villanueva</td>
<td>Comm. Approaching Sustainability w/ Agroecology</td>
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<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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<td>FS99-090</td>
<td>Crop Rotation and Rotational Grazing Study</td>
<td>$9,876</td>
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<td>FS98-075</td>
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<td>$7,561</td>
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<td>FS97-050</td>
<td>Effects of Conservation Tillage on Water Quality</td>
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<td>Charles Eubanks</td>
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<td>FS97-053</td>
<td>Cool Season and Warm Season Grasses to Stabilize</td>
<td>$10,000</td>
<td>David Kearney</td>
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<tr>
<td>FS96-036</td>
<td>Native Warm Season Grasses As Alternative Hay</td>
<td>$9,640</td>
<td>Lee B. Dexter</td>
<td>White Egret Farm</td>
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<td></td>
<td>Source to Annual Sorghum/Sudan Grasses on Family-</td>
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<td>Operated Goat Dairy</td>
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<td>FS95-021</td>
<td>Pecan IPM Using Black-Eyed Peas as a Trap Crop</td>
<td>$4,000</td>
<td>Kyle Brooksheir</td>
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### GRADUATE STUDENT GRANTS

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<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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</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 |
| 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 |
| GS18-193   | Investigating Controls Over Nodulation and Nitrogen Fixation in Leguminous Cover Crops in Subtropical South Texas | $16,500      | Dr. Alexis Racelis  
University of Texas - Rio Grande Valley  
Stephanie Kasper  
University of Texas Rio Grande Valley |
GS18-196 Effects of Cumulative Cattle Trampling on Soil Bulk Density and Infiltration of Rain Water on an Annual Forage Crop Pasture $9,001 Dr.Charles West Texas Tech University Dr.Kathryn Radicke-Vanderburg West Texas A&M University / Purdue Global University/ Unity College

GS18-179 Developing Suitable Cover Crop Systems for South Texas: Evaluating Different Late-Summer and Winter Cover Crop Species $16,352 Muthu Bagavathiannan Texas A&M University Spencer Samuelson Corteva Agriscience

GS16-160 Agroecological methods to manage brassica pests on organic farms $11,000 Dr.Alexis Racelis University of Texas - Rio Grande Valley Madeline Marshall Corteva Agriscience

GS16-161 Examining the role of bats in pest management in agroecosystems of south Texas $10,223 Dr.Alexis Racelis University of Texas - Rio Grande Valley Katharine Jones The University of Texas at Rio Grande Valley

GS15-148 Multifunctionality of Cover Crops in South Texas: Looking at multiple benefits of cover cropping on small farms in a subtropical climate $8,953 Dr.Alexis Racelis University of Texas - Rio Grande Valley Savannah Rugg University of Texas Pan-American

GS15-152 Evaluation of winter annual cover crops under multiple residue managements: Impacts on land management, soil water depletion, and cash crop productivity. $9,383 Dr.Charles West Texas Tech University Dr.Lisa Baxter University of Georgia (Tifton Campus)

GS14-133 Effects of Simulated and Insect Herbivory on Total and Protein Percipitable Phenolic Concentrations of Two Legumes $9,040 Dr.James Muir Texas A&M AgriLife Research Tiana Blackmon Tarleton State University

GS14-138 Use of Artificial Lighting to Increase Photoperiod Length for Pasture-Raised Laying Hens to Improve Egg Productivity and Quality $10,997 Dr.Jackie Wahrmund University of Kentucky Margaret Morgan Texas A&M University-Commerce

GS12-109 Factors contributing to the economic impact of cotton fleahoppers, Pseudatomoscelis seriatus $9,336 Micky Eubanks Auburn University Lorriann Garcia Texas A&M University

GS11-107 Managing Climate Change on Apple Orchards $9,954 Dr.James Veteto University of North Texas Stephen Carlson University of North Texas

GS11-108 Evaluating functional diversity in an organic intercropping system $10,000 Dr.Astrid Volder Texas A&M University Jose Franco Texas A&M University

GS07-056 Allelopathic effects of small grain cover crops on cotton plant growth and yields $10,000 Dr.Vivien Allen Texas Tech University Yue Li Texas Tech University

GS07-064 Cropping systems for sustainable nutrient management and dairy production $10,000 Donald Vietor, PhD Texas A&M University, Soil & Crop Sciences Ronnie Schnell Texas A&M University, Soil & Crop Sciences

GS04-040 Cycling of composted biosolids through turfgrass sod enhances sustainability across agricultural and urban landscapes $10,000 Donald Vietor, PhD Texas A&M University, Soil & Crop Sciences Nels Hansen Soil & Crop Sciences Department

GS03-021 Development of Methodology to Measure Net Feed Efficiency in Bulls to Enhance Profitability and Environmental Sustainability of Beef Production $10,000 Gordon Carstens Texas A&M University
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| GS02-012  | Optimizing Water Use for Three Old World Bluestems in the Texas High Plains | $10,000      | Dr. Vivien Allen  
                      Texas Tech University  
                      Dirk Philipp  
                      Texas Tech University |

### ON FARM RESEARCH/PARTNERSHIP GRANTS

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<th>Project #</th>
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</table>
| OS22-156   | Promoting Water Sustainable Agriculture by Combining In-situ Soil Moisture and Remote Sensing Data for Irrigation Scheduling | $19,987      | Dr. Ali Ajaz  
                      Texas Water Resources Institute, Texas A&M AgriLife Extension Services |
| OS21-140   | Introducing Beneficial Entomopathogenic Nematodes for Biological Control and Enhanced Plant Resistance to Improve Pest Management in Cucurbit Crops | $20,000      | Anjel Helms  
                      Texas A&M University |
| OS20-138   | Strategic Management of Legume Cover-forage Crops to Optimize Utility in a Challenging Environment | $20,000      | Dr. Reagan Noland  
                      Texas A&M AgriLife Extension |
| OS20-139   | Incorporating Native Plants in Insectary Strips to Promote Insect Diversity and Belowground Beneficial Microbes | $20,000      | Dr. Pushpa Soti  
                      University of Texas Rio Grande Valley |
| OS19-128   | Sustainable Pasture Management in Texas: Optimizing forage production and nutrient use in various environments and soils | $14,298      | Dr. James Kiniry  
                      usda-ars |
| OS19-131   | Advancing the Frontier of Legume Cover Crops and Building Integrated System Resilience in Semi-arid West Texas | $15,000      | Dr. Reagan Noland  
                      Texas A&M AgriLife Extension |
| OS18-119   | Supporting Alternative Crop Options Through Improved Fertility Recommendations for Canola in Central and South Texas | $14,811      | Dr. Fernando Guillen-Portal  
                      Sustainable Oils/Global Clean Energy Holdings |
| OS18-121   | Integrating Cover Crops as Potential Weed and Pest Management Strategy in Organic Vegetable Farms in South Texas | $15,000      | Dr. Pushpa Soti  
                      University of Texas Rio Grande Valley |
| OS17-108   | Using Mycorrhizal Fungi to Improve Soil Health and Increase Yield in Organic Vegetable Farms | $14,995      | Dr. Alexis Racelis  
                      University of Texas - Rio Grande Valley |
| OS16-095   | Deep Soil Profile Sampling of Nitrate for Residual Nitrogen Credit in Winter Wheat - Texas Blacklands | $15,000      | Dr. Jake Mower  
                      Texas A&M Agrilife Extension |
| OS14-087   | Determining accurate nitrate level requirements in an aquaponic system.        | $9,737       | Dr. JOSEPH MASABNI  
                      Texas A&M |
| OS14-089   | Developing farmer-appropriate integrated pest management strategies in South Texas: The potential of push-pull technologies to regulate organic brassica pest | $15,000      | Dr. Alexis Racelis  
                      University of Texas - Rio Grande Valley |
| OS13-072   | Huitlacoche Production as an Alternative Crop in South Texas                    | $14,962      | Dr. Alexis Racelis  
                      University of Texas - Rio Grande Valley |
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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| CS10-076  | Investing in Community Linkages to Improve our Food System                    | $10,000      | Jay Crossley  
Houston Tomorrow                           |
| CS10-081  | Establishing Sustainable Agriculture & Community Development in Elgin Texas   | $10,000      | Amy Miller  
City of Elgin                                |
| CS06-040  | Building Local Food & Local Communities in Western Oklahoma                   | $10,000      | Darryl Birkenfield  
Ogallala Commons                              |
| CS03-012  | Sustainable Agriculture Innovations Lead to Rural Success                    | $10,000      | Gayla Kessinger  
Canutillo Independent Schoo                  |

Total funding from the USDA SARE program to Texas $10,802,932

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).