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 $332 million to more than 7,748 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.

SARE: Advancing the Frontier of Sustainable Agriculture in...

Oklahoma

Project Highlight: Growing a Local Understanding of Soil Health

Some farming practices commonly used in Oklahoma have reduced the state’s soil quality, leading to soils that are often low in organic matter. To remain productive, attention needs to be placed on improving and monitoring soil quality.

Realizing the importance of such attention, Kefyalew Desta used a SARE grant to obtain local soil quality information and develop a soil quality assessment index that can be used to quantify the overall soil quality status of a farm. As Desta was testing soil properties on-farm, 65 percent of the owners participated in the sampling and discussed the results.

This engagement of the farmers paid off. According to Desta, at the beginning of the project, 65 percent of them did not know the difference between soil health and soil fertility. Following the on-farm sampling and trainings, 80 percent of the farmers are now communicating with ag educators to seek help in soil health analysis. At least 60 percent plan to use on-site soil quality testing as part of their routine soil management. Desta also coordinated in-service trainings and demonstrations, reaching over 200 people.

For more information on this project, see sare.org/projects, and search for project number OS11-058.

SARE in Oklahoma

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

$3,448,812 in total funding

48 grant projects

(since 1988)

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

Total awards: **48 grants**
- 15 Research and Education
- 2 Sustainable Community Innovation
- 8 Professional Development Program
- 13 Farmer/Rancher
- 2 Graduate Student
- 8 On Farm Research/Partnership

Total funding: **$3,448,812**
- $2,464,653 Research and Education
- $16,864 Sustainable Community Innovation
- $710,963 Professional Development Program
- $122,429 Farmer/Rancher
- $19,969 Graduate Student
- $113,934 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/oklahoma

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/oklahoma to learn more.

- **Terry Gipson**
  - Langston University
  - (405) 466-6126
  - terry.gipson@langston.edu

- **Jason Warren**
  - Oklahoma State University
  - (405) 744-1721
  - jason.warren@okstate.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.
Oklahoma has been awarded $3,448,812 grants to support 47 projects, including but not limited to, 14 research and/or education projects, 8 professional development projects and 13 producer-led projects. Oklahoma 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>LS20-338</td>
<td>Researching &amp; Networking Native American &amp; Socially Disadvantaged Farmers Traditional Market Gardening Production System Resiliency</td>
<td>$298,066</td>
<td>Dr. Joshua Ringer, Langston University School of Agriculture and Applied Sciences Julie Gahn, Oklahoma Farmers and Ranchers Association Denis Haga, Pawnee Nation College Dr. Tracey Payton-Miller, Langston University School of Agriculture and Applied Sciences Dr. Monte Randall, College of the Muscogee Nation</td>
</tr>
<tr>
<td>LS20-344</td>
<td>Developing a Sustainable Meat Goat Production and Marketing System for the Southeastern United States through an 1890 Universities Consortium</td>
<td>$600,000</td>
<td>Terry Gipson, Langston University Dr. Richard Browning, Jr., Tennessee State University Dr. Nirodha De Silva, Langston University Dr. Kesha Henry, Prairie View A&amp;M University Dr. Una Karki, Tuskegee University Dr. Brou Kouakou, Fort Valley State University Angela McKenzie-Jakes, Florida A&amp;M University Dr. Roger Merkel, Langston University Dr. Dahlia O'Brien, Virginia State University</td>
</tr>
<tr>
<td>LS06-189</td>
<td>Increasing Sustainability of Southern Great Plains' Agriculture Through No-till Production Systems</td>
<td>$183,000</td>
<td>Jeff Edwards, Oklahoma State University</td>
</tr>
<tr>
<td>LS02-139</td>
<td>Developing Sustainable Stored Grain IPM Systems in Oklahoma and Texas</td>
<td>$133,371</td>
<td>Thomas Phillips, Oklahoma State University</td>
</tr>
<tr>
<td>LS01-119</td>
<td>Use of goats for sustainable vegetation management in grazing lands</td>
<td>$172,210</td>
<td>Arthur Goetsch, Langston University</td>
</tr>
<tr>
<td>LS00-116</td>
<td>Developing Plans for Sustainable Beef Marketing Strategies</td>
<td>$19,700</td>
<td>Eric Allenbach, The Kerr Center for Sustainable Agriculture, Inc.</td>
</tr>
</tbody>
</table>
### Controlling Cheat and Annual Ryegrass in Small Grains Using Novel Crop Harvesting Technologies

**Project #**: LS96-081  
**Project Title**: Controlling Cheat and Annual Ryegrass in Small Grains Using Novel Crop Harvesting Technologies (AS96-025)  
**SARE Support**: $83,624  
**Project Leaders**
- Thomas F. Peeper  
  Oklahoma State University

### Multi-Cropping Cattle and Watermelon in the Southern Plains

**Project #**: LS96-079  
**Project Title**: Multi-Cropping Cattle and Watermelon in the Southern Plains  
**SARE Support**: $54,752  
**Project Leaders**
- Warren Roberts  
  Oklahoma State University, Department of Horticulture

### Improving Integrated Resource Management Skills of Beef Producers

**Project #**: LS96-074  
**Project Title**: Improving Integrated Resource Management Skills of Beef Producers  
**SARE Support**: $163,642  
**Project Leaders**
- Damona Doye  
  Oklahoma State University

### Post-CRP Land Management and Sustainable Production Alternatives for Highly Erodible Land in the Southern Great Plains

**Project #**: LS94-058  
**Project Title**: Post-CRP Land Management and Sustainable Production Alternatives for Highly Erodible Land in the Southern Great Plains  
**SARE Support**: $196,100  
**Project Leaders**
- Thanh H. Dao  
  USDA ARS

### Pest Management and Orchard Floor Management Strategies to Reduce Pesticide and Nitrogen Inputs

**Project #**: LS91-036  
**Project Title**: Pest Management and Orchard Floor Management Strategies to Reduce Pesticide and Nitrogen Inputs  
**SARE Support**: $150,000  
**Project Leaders**
- Michael Smith  
  Oklahoma State University

### Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains

**Project #**: LS90-028  
**Project Title**: Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains  
**SARE Support**: $60,000  
**Project Leaders**
- John B. Solie  
  Oklahoma State University

### Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains

**Project #**: LS89-013  
**Project Title**: Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains  
**SARE Support**: $140,000  
**Project Leaders**
- John B. Solie  
  Oklahoma State University

### Professional Development Program Grants

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
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<th>Project Leaders</th>
</tr>
</thead>
</table>
| ES21-160  | Assisting Agricultural Professionals in Training and Developing Community-Based Prescribed Fire Cooperatives | $75,574      | John Weir  
  Oklahoma Prescribed Burn Association  
  Russell Stevens  
  Noble Research Institute                |
| ES19-145  | Southern Region SARE Professional Development Grant -- The Road to Soil Health | $59,442      | Amy Hays  
  Noble Research Institute, LLC          |
| ES02-062  | A Training and Educational Program to Ensure the South’s Future              | $119,905     | Jim Horne  
  Kerr Center for Sustainable Agriculture  |
| ES98-037  | Oklahoma Master Woodland Owner Program                                      | $23,640      | William Ross  
  Oklahoma State University Department Of Forestry                  |
| ES97-027  | A Training Program for Agriculture Educators Targeting Integrated Cow/calf Operation Management Systems | $342,389     | Steven Smith  
  Oklahoma State University                   |
| ES97-020  | State Training in Integrated Erosion Control Systems                      | $70,013      | Gerrit Cuperus  
  Oklahoma State University                   |
| ES97-021  | State Training Enhancement Project to Ensure Effective Sustainable Agriculture Training in Integrated Erosion Control Systems | $10,000      | Gerrit Cuperus  
  Oklahoma State University                   |
| ES97-024  | Barriers to Sustainable Agriculture Training in Oklahoma                  | $10,000      | Derrell Peel  
  Oklahoma State University                   |

### Farmer/Rancher Grants

<table>
<thead>
<tr>
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</table>
| ES97-027  | A Training Program for Agriculture Educators Targeting Integrated Cow/calf Operation Management Systems | $342,389     | Steven Smith  
  Oklahoma State University                   |
| ES97-020  | State Training in Integrated Erosion Control Systems                      | $70,013      | Gerrit Cuperus  
  Oklahoma State University                   |
| ES97-021  | State Training Enhancement Project to Ensure Effective Sustainable Agriculture Training in Integrated Erosion Control Systems | $10,000      | Gerrit Cuperus  
  Oklahoma State University                   |
| ES97-024  | Barriers to Sustainable Agriculture Training in Oklahoma                  | $10,000      | Derrell Peel  
  Oklahoma State University                   |
<table>
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</tr>
</thead>
<tbody>
<tr>
<td>FS14-283</td>
<td>Diversification of Winter Wheat &amp; Beef Cattle Production fields through Agroforestry &amp; Covercrop integration</td>
<td>$9,107</td>
<td>Doug Ringer Farmer</td>
</tr>
<tr>
<td>FS11-254</td>
<td>Hitting Seasonal Market Highs by breeding Meat Goats during the Summer months</td>
<td>$2,821</td>
<td>James Jones Rockin Double J Boer Goats</td>
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<tr>
<td>FS04-183</td>
<td>Sustainable Hair Sheep Silvopastoral System</td>
<td>$9,980</td>
<td>Brother Joseph-Marie Owen</td>
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<tr>
<td>FS03-166</td>
<td>White Wheat Marketing System</td>
<td>$15,000</td>
<td>Bob Dietrick Oklahoma White Wheat Producers’ Alliance</td>
</tr>
<tr>
<td>FS03-162</td>
<td>Oklahoma Farm Direct Retail Market Project</td>
<td>$15,000</td>
<td>Kathy Carter-White Cherokee Small Farm Project</td>
</tr>
<tr>
<td>FS02-150</td>
<td>Fixed Film Anerobic Methane Digester</td>
<td>$9,184</td>
<td>Michael H. Green</td>
</tr>
<tr>
<td>FS01-133</td>
<td>Low Cost Method of Establishing High Seral Native Grass Species</td>
<td>$8,519</td>
<td>Terry Stuart Forst</td>
</tr>
<tr>
<td>FS99-092</td>
<td>The Effect of Crop Land Applied Poultry Litter on Water Quality</td>
<td>$9,556</td>
<td>Rick Jeans</td>
</tr>
<tr>
<td>FS98-069</td>
<td>Integrated Goat Management System for Fiber and Meat</td>
<td>$10,000</td>
<td>Claud Evans</td>
</tr>
<tr>
<td>FS97-060</td>
<td>Economics of Extended-season Cut Flower Production</td>
<td>$8,100</td>
<td>Vicki Stamback Bear Creek Farm</td>
</tr>
<tr>
<td>FS97-063</td>
<td>Sustainable Wheat Management Systems</td>
<td>$9,344</td>
<td>Curtis Torrance</td>
</tr>
<tr>
<td>FS95-022</td>
<td>Demonstration of No-Tillage Grain Production for Soil and Moisture Conservation</td>
<td>$9,818</td>
<td>Bob Dietrick Oklahoma White Wheat Producers’ Alliance</td>
</tr>
<tr>
<td>FS94-014</td>
<td>Cut Flowers as a Sustainable Agriculture Alternative</td>
<td>$6,000</td>
<td>Vicki Stamback Bear Creek Farm</td>
</tr>
</tbody>
</table>

**GRADUATE STUDENT GRANTS**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GS08-066</td>
<td>Conservation of Predatory Carabid Beetles (Coleoptera: Carabidae) in agroecosystems of the Southern Great Plains</td>
<td>$9,996</td>
<td>Kristopher Giles Oklahoma State University</td>
</tr>
<tr>
<td>GS03-025</td>
<td>Integrating Effects of Natural Enemies into Winter Wheat Greenbug Management</td>
<td>$9,973</td>
<td>Kristopher Giles Oklahoma State University</td>
</tr>
</tbody>
</table>

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
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</tr>
</thead>
<tbody>
<tr>
<td>OS18-120</td>
<td>A Comparison of Row Cover Materials for Use in Excluding Major Insect Pests from Cucurbit Crops</td>
<td>$14,933</td>
<td>Dr. Eric Rebek Oklahoma State University</td>
</tr>
</tbody>
</table>

Dr. Jim Shrefler Oklahoma State University
OS18-115 Practical Approaches to Microbial Community Analyses for Production Agriculture in the Southern Great Plains $9,745 Dr. David Brown USDA-ARS
Dr. Curtis Dell USDA-ARS

OS14-091 Row Cover Use Methods for Cucurbit Pest and Pollinator Management $14,995 Dr. Jim Shrefler Oklahoma State University

OS13-080 Companion Plants as Tools for Pest Management of Squash Bug on Summer Squash $14,792 Dr. Brian Kahn Oklahoma State University

OS11-058 Comparison of soil quality of farms managed with sustainable and conventional soil management practices in Oklahoma $15,000 Dr. Kefyalew (Girma) Desta Montana State University

OS09-048 Teff: An Alternative Crop for Oklahoma $14,948 Dr. Kefyalew (Girma) Desta Montana State University
Kefyalew Desta Oklahoma State University

OS08-041 Increasing the Sustainability of Oklahoma Cropping Systems Using Cover Crops $15,000 Dr. Chad Godsey Oklahoma State University

OS03-012 Introducing Legume Cover Crops into Large Scale Grain-Cattle Production Systems $14,521 Steve Kraich Oklahoma State University Extension

SUSTAINABLE COMMUNITY INNOVATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| CS11-084  | Traditional Mvskoke Foods Recovery Project | $9,964 | Stephanie Berryhill  
Mvskoke Food Sovereignty Initiative |
| CS02-007  | Pioneering the Way to the Future | $6,900 | Diann Neal  
Okemah Chamber of Commerce |

Total funding from the USDA SARE program to Oklahoma $3,448,812

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).