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 $389 million to more than 8,542 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...

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

www.sare.org
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.

**AGRICULTURE PROJECTS FUNDED IN OKLAHOMA**

by USDA's

Sustainable Agriculture Research and Education (SARE) Program

### 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>
| LS20-344  | Developing a Sustainable Meat Goat Production and Marketing System for the Southeastern United States through an 1890 Universities Consortium | $600,000     | Terry Gipson  
Langston University  
Dr.Richard Browning, Jr.  
Tennessee State University  
Dr.Nirodha De Silva  
Langston University  
Dr.Kesha Henry  
Prairie View A&M University  
Dr.Uma Karki  
Tuskegee University  
Dr.Brou Kouakou  
Fort Valley State University  
Angela McKenzie-Jakes  
Florida A&M University  
Dr.Roger Merkel  
Langston University  
Dr.Dahlia O’Brien  
Virginia State University |
| LS20-338  | Researching & Networking Native American & Socially Disadvantaged Farmers Traditional Market Gardening Production System Resiliency | $298,066     | 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 |
| LS06-189  | Increasing Sustainability of Southern Great Plains’ Agriculture Through No-till Production Systems | $183,000     | Jeff Edwards  
Oklahoma State University |
| LS02-139  | Developing Sustainable Stored Grain IPM Systems in Oklahoma and Texas | $133,371     | Thomas Phillips  
Oklahoma State University |
| LS01-119  | Use of goats for sustainable vegetation management in grazing lands | $172,210     | Arthur Goetsch  
Langston University |
| LS00-116  | Developing Plans for Sustainable Beef Marketing Strategies | $19,700      | Eric Allenbach  
The Kerr Center for Sustainable Agriculture, Inc. |
| LS99-102  | Demonstration of a Sustainable Integrated Production System for Native Pecan and Beef Cattle Producers and its Effect on Ecology in Flood Prone Areas | $210,188     | B. Dean McCraw  
Dept. of Horticulture |
### Controlling Cheat and Annual Ryegrass in Small Grains Using Novel Crop Harvesting Technologies

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

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

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

### Improving Integrated Resource Management Skills of Beef Producers

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

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

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

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

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

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

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

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

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

## PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

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

## FARMER/RANCHER GRANTS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ES97-021</td>
<td>State Training Enhancement Project to Ensure Effective Sustainable Agriculture Training in Integrated Erosion Control Systems</td>
<td>$10,000</td>
<td>Gerrit Cuperus, Oklahoma State University</td>
</tr>
<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
</tr>
<tr>
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<td>------------------------------------------------------</td>
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<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>
</tr>
<tr>
<td>FS04-183</td>
<td>Sustainable Hair Sheep Silvopastoral System</td>
<td>$9,980</td>
<td>Brother Joseph-Marie Owen</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>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>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>FS97-063</td>
<td>Sustainable Wheat Management Systems</td>
<td>$9,344</td>
<td>Curtis Torrance</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>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>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
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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 Sarah Donelson 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 Douglas Jones 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>OS18-115</td>
<td>Practical Approaches to Microbial Community Analyses for Production Agriculture in the Southern Great Plains</td>
<td>$9,745</td>
<td>Dr.David Brown USDA-ARS Dr.Curtis Dell USDA-ARS</td>
</tr>
</tbody>
</table>
A Comparison of Row Cover Materials for Use in Excluding Major Insect Pests from Cucurbit Crops

$14,933

Dr. Eric Rebek
Oklahoma State University

Dr. Jim Shrefler
Oklahoma State University

Row Cover Use Methods for Cucurbit Pest and Pollinator Management

$14,995

Dr. Jim Shrefler
Oklahoma State University

Companion Plants as Tools for Pest Management of Squash Bug on Summer Squash

$14,792

Dr. Brian Kahn
Oklahoma State University

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

Teff: An Alternative Crop for Oklahoma

$14,948

Dr. Kefyalew (Girma) Desta
Montana State University

Kefyalew Desta
Oklahoma State University

Increasing the Sustainability of Oklahoma Cropping Systems Using Cover Crops

$15,000

Dr. Chad Godsey
Oklahoma State University

Introducing Legume Cover Crops into Large Scale Grain-Cattle Production Systems

$14,521

Steve Kraich
Oklahoma State University Extension

SUSTAINABLE COMMUNITY INNOVATION GRANTS

Project # Project Title SARE Support Project Leaders
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 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).