#### 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 \$406 million to more than 8.803 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.



www.sare.org

# 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.

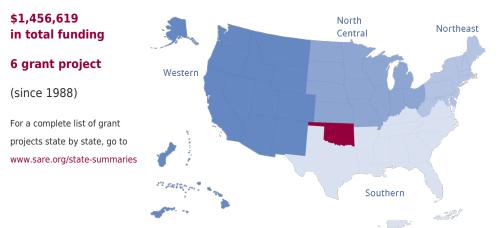
Realizing the importance of such attention, Kefyalew Desta used a SARE grant to obtain local soil quality information and develop a soil quality assessment index that can be used to quantify the overall soil quality status of a farm. As Desta was testing soil properties on-farm, 65 percent of the owners 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 <a href="mailto:sare.org/projects">sare.org/projects</a>, and search for project number OS11-058.

### **SARE in Oklahoma**

southern.sare.org/state-profiles/oklahoma/



## **SARE in Oklahoma**

## **Grants awarded** 2019-2024

# Total awards: 6 grants

- 1 Farmer/Rancher
- Research and Education
- 2 Professional Development Program

# Total funding: **\$1,456,619**

\$25,000 Farmer/Rancher

\$1.296.603 Research and Education

\$135,016 Professional Development Program

Find a complete list of projects on page 3.

## Farmer and rancher impacts 2019-2024

SARE grantees have reported the following impacts from their projects:

2,196 farmers participated in a SAREfunded project

32 farmers reported a change in knowlege, awareness, skills or attitude

#### 12 farmers changed a practice



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-profiles/oklahoma/ to learn more.

Terry Gipson Langston University (405) 466-6126

terry.gipson@langston.edu

Janelle Malone Oklahoma State University (405) 744-3669 janelle.malone@okstate.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.



# AGRICULTURE PROJECTS FUNDED IN OKLAHOMA

by USDA's

Sustainable Agriculture Research and Education (SARE) Program

Oklahoma has been awarded \$3,872,349 grants to support 49 projects, including but not limited to, 15 research and/or education projects, 8 professional development projects and 14 producer-led projects. Oklahoma has also received additional SARE support through multi-state projects.

#### RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
LS24-392	Development of highly productive protected cultivation of tomato in Southern U.S.	\$398,537	Devi Kandel Langston University Dr.Carlos Avila Texas A&M AgriLife Research and Extension Center Dr.Nirodha De Silva Langston University Terry Gipson Langston University Dr.Leonard Kibet Langston 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 Dr.Tracey Payton-Miller Langston University School of Agriculture and Applied Sciences Dr.Monte Randall College of the Muscogee Nation

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
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
LS96-081	Controlling Cheat and Annual Ryegrass in Small Grains Using Novel Crop Harvesting Technologies (AS96-025)	\$83,624	Thomas F. Peeper Oklahoma State University
LS96-079	Multi-Cropping Cattle and Watermelon in the Southern Plains	\$54,752	Warren Roberts Oklahoma State University, Department of Horticulture
LS96-074	Improving Integrated Resource Management Skills of Beef Producers	\$163,642	Damona Doye Oklahoma State University

LS94-058	Post-CRP Land Management and Sustainable Production Alternatives for Highly Erodible Land in the Southern Great Plains	\$196,100	Thanh H. Dao USDA ARS
LS91-036	Pest Management and Orchard Floor Management Strategies to Reduce Pesticide and Nitrogen Inputs	\$150,000	Michael Smith Oklahoma State University
LS90-028	Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains	\$60,000	John B. Solie Oklahoma State University
LS89-013	Substitution of Cultural Practices for Herbicides to Control Annual Rye Grass and Cheat in Small Grains	\$140,000	John B. Solie Oklahoma State University

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
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
ES97-024	Barriers to Sustainable Agriculture Training in Oklahoma	\$10,000	Derrell Peel 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

#### FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FS24-373	Enhancing Profit Margins for Pawnee Corn Growers: Innovative Strategies for Value-Added Product Development and Marketing	\$25,000	Debra Echo-Hawk Pawnee Seed Preservation Society
FS14-283	Diversification of Winter Wheat & Beef Cattle Production fields Through Agroforestry & Covercrop integration	\$9,107	Doug Ringer Farmer
FS11-254	Hitting Seasonal Market Highs by breeding Meat Goats during the Summer months	\$2,821	James Jones Rockin Double J Boer Goats
FS04-183	Sustainable Hair Sheep Silvopastoral System	\$9,980	Brother Joseph-Marie Owen
FS03-162	Oklahoma Farm Direct Retail Market Project	\$15,000	Kathy Carter-White Cherokee Small Farm Project
FS03-166	White Wheat Marketing System	\$15,000	Bob Dietrick Oklahoma White Wheat Producers' Alliance
FS02-150	Fixed Film Anerobic Methane Digester	\$9,184	Michael H. Green
FS01-133	Low Cost Method of Establishing High Seral Native Grass Species	\$8,519	Terry Stuart Forst
FS99-092	The Effect of Crop Land Applied Poultry Litter on Water Quality	\$9,556	Rick Jeans
FS98-069	Integrated Goat Management System for Fiber and Meat	\$10,000	Claud Evans
FS97-063	Sustainable Wheat Management Systems	\$9,344	Curtis Torrance
FS97-060	Economics of Extended- season Cut Flower Production	\$8,100	Vicki Stamback Bear Creek Farm

FS95-022	Demonstration of No-Tillage Grain Production for Soil and Moisture Conservation	\$9,818	Bob Dietrick Oklahoma White Wheat Producers' Alliance
FS94-014	Cut Flowers as a Sustainable Agriculture Alternative	\$6,000	Vicki Stamback Bear Creek Farm

#### **GRADUATE STUDENT GRANTS**

Project #	Project Title	SARE Support	Project Leaders
GS08-066	Conservation of Predatory Carabid Beetles (Coleoptera: Carabidae) in agroecosystems of the Southern Great Plains	\$9,996	Kristopher Giles Oklahoma State University Sarah Donelson Oklahoma State University
GS03-025	Integrating Effects of Natural Enemies into Winter Wheat Greenbug Management	\$9,973	Kristopher Giles Oklahoma State University Douglas Jones Oklahoma State University

#### ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
OS18-120	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
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

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 \$3,872,349





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).