

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.



www.sare.org

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

Kansas

Project Highlight: *Advancing Hemp Production in Kansas*

In 2018, the Kansas Legislature legalized the cultivation of industrial hemp. But growing hemp is challenging - from equipment and license requirements to managing markets and aphids. Still, several Kansas farmers are growing hemp and sharing their experiences with others.

The [Kansas Hemp Consortium](#) is a group of licensed hemp producers, processors, dryers, chemists, soil and water scientists, farmers, ranchers, and business developers interested in hemp-related businesses. They collect data on seed sourcing, genetics, planting dates and techniques, precipitation, fertilization, pest pressure, weed management, harvest techniques, yields, and plant characteristics.

In 2021, the Kansas Hemp Consortium started testing six hemp varieties with Kansas farmers in different growing climates and soil types across various parts of Kansas, with support from a SARE grant. In 2022, they received a second grant to provide farmers with recommended genetics, planting techniques, and guidance through changing regulations.

They share what they learn as they work to build a knowledge bank for hemp production in Kansas and the central plains. Their "[Kansas Industrial Hemp Planting Best Practices Guide](#)" includes information on regulations, seasonal timing, genetics, equipment, and environmental conditions.

"Today, little information is available for hemp producers to make decisions," said Sarah Stephens, President of the Kansas Hemp Consortium. "The farmers and respective farms involved in these projects hope to promote the growth of the industrial hemp industry in Kansas."

For more information on these projects, see sare.org/projects, and search for project numbers [FNC21-1307](#) and [ONC22-105](#).

SARE in Kansas

northcentral.sare.org/state-programs/kansas

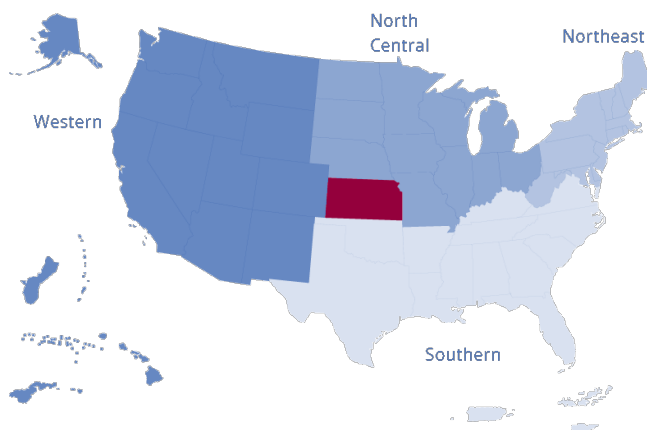
\$5,484,574
in total funding

196 grant projects

(since 1988)

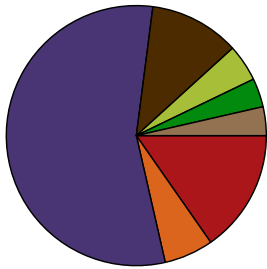
For a complete list of grant projects state by state, go to

www.sare.org/state-summaries



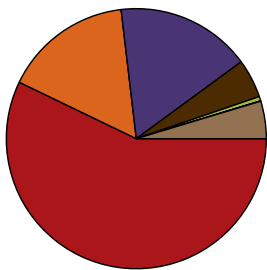
SARE Grants in Kansas

Total awards: 196 grants



30 Research and Education
 12 Professional Development Program
 109 Farmer/Rancher
 22 Graduate Student
 9 Youth Educator
 7 Youth
 7 On Farm Research/Partnership

Total funding: \$5,484,574



\$3,134,498 Research and Education
 \$876,422 Professional Development Program
 \$921,488 Farmer/Rancher
 \$264,157 Graduate Student
 \$29,984 Youth Educator
 \$2,590 Youth
 \$255,434 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:

northcentral.sare.org/state-programs/kansas

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 northcentral.sare.org/state-pages/kansas to learn more.

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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 KANSAS

by USDA's
Sustainable Agriculture Research and Education (SARE) Program

Kansas has been awarded \$5,484,574 grants to support 195 projects, including but not limited to, 29 research and/or education projects, 12 professional development projects and 109 producer-led projects. Kansas has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
LNC22-476	Evaluating virtual fences for cattle in regards to water resources, forage management, invasive weed control, and wildlife systems	\$249,999	Jaymelynn Farney Kansas State University
LNC21-446	Increasing Climate Resilience Among Refugee & Immigrant Farmers in Kansas City and Beyond	\$235,004	Semra Fetahovic Cultivate KC
LNC20-441	Improving disease resistance in the perennial grain Kernza to protect the value of the grain and the environment	\$167,433	Dr. Jessica Rupp Kansas State University
LNC19-431	Animal Fiber Production for the Fashion Supply Chain: Developing Sustainable Agriculture Curriculum for High School Young Women	\$148,700	Dr. Kim Hiller Kansas State University
LNC18-411	Cover Crop Management Options to Improve Weed Control, Crop Yield and Soil Health	\$199,820	Dr. Augustine Obour Kansas State University
LNC15-369	Strengthening Organic Sweet Potato Propagation Systems in the North Central Region	\$195,968	Dr. Jason Griffin Kansas State University
LNC15-372	The Impact of Fuel Load, Burn Season, and Fire Frequency on the Control of an Invasive Legume, Sericea Lespedeza	\$199,717	Dr. Brenda Koerner Emporia State University Pamela Fillmore Emporia State University
LNC13-355	Tomato Grafting: Developing Grower Recommendations for the Great Plains and Enhancing Our Understanding of the "Rhizobiome"	\$158,516	Dr. Cary Rivard Kansas State University
LNC10-318	Establishment of Permissible Levels of Residue Removal for Corn, Wheat, and Sorghum Fields as Biofuel Feedstocks	\$173,278	Dr. Humberto Blanco University of Nebraska
LNC10-319	Participatory Plant Breeding and Agroecology to Develop Intermediate Wheatgrass for Sustainable Grain Production	\$171,446	Dr. Lee DeHaan The Land Institute
LNC06-273	Pasture-wheat intercropping for post-contract Conservation Reserve Program Lands	\$70,188	Dr. Jerry Glover The Land Institute
LNC06-274	Domesticating Intermediate Wheatgrass for Sustainable Grain Production	\$134,765	Dr. Lee DeHaan The Land Institute

LNC05-253	Growing Growers for Greater Kansas City: Establishing a Permanent Program to Train Farmers in Sustainable, Local Food Production and Marketing	\$105,027	Edward Carey Kansas State University
LNC03-238	Growing Growers for Greater Kansas City: Improving Skills for Sustainable Local Food Production and Marketing	\$100,246	Edward Carey Kansas State University
LNC02-210	Guided Exploration of Value Added Enterprises Project	\$99,096	Dan Nagengast Kansas Rural Center, Inc
LNC01-184	Developing a Historical Community-Based Wheat Milling Cooperative	\$83,965	Edgar Hicks Kansas Black Farmers Assoc.
LNC00-170	Assisting Farmers with Enterprise Diversification	\$54,550	Jerry Jost Kansas Rural Center
LNC99-151	Skill Training for Beginning Farmers	\$30,886	Jerry Jost Kansas Rural Center
LNC98-127	County Fair Tomato Cooperative: Developing an Organic Tomato Processing Cooperative	\$67,800	Dan Nagengast Kansas Rural Center, Inc
LNC98-142	Heartland Sustainable Agriculture Network	\$64,000	Jerry Jost Kansas Rural Center
LNC97-106	Cluster use of Whole-Farm Planning with Decision Cases and Evaluation	\$106,400	Dr. Rhonda Janke Kansas State University
LNC97-123	Yesterday's Research for Tomorrow's Needs	\$63,500	Dr. Rhonda Janke Kansas State University
LNC96-102	Bioremediation of Saline Seeps	\$17,778	Kyle Mankin Biological and Agricultural Engineering, Kansas State University
LNC96-110	Farmer Marketing Information Coops	\$22,390	Jerry Jost Kansas Rural Center
LNC95-078	Development of a Rancher Cooperative to Market Grass-Fed Meat	\$33,300	Dan Nagengast Kansas Rural Center, Inc
LNC95-083	Farmer-to-Farmer Cover Crop Network Complementing On-Farm and On-Station Trials	\$46,954	Jerry Jost Kansas Rural Center
LNC89-016.1	Assessing Soil Phosphorus Availability in Low-Input Systems	\$19,742	Steve Thien Kansas State University
LNC89-025	Synchrony and Contribution of Legume Nitrogen for Grain Production Under Different Tillage Systems	\$95,081	John Havlin Kansas State University
LNC88-016	Assessing Soil Phosphorus Availability in Low-Input Systems	\$18,949	Steve Thien Kansas State University

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
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ENC23-229	Training agriculture professionals and educators to support beginning farmer veterans' mental health.	\$119,032	Dr.Candice Shoemaker Kansas State University
ENC21-200	Enhancing community water quality, livestock performance, and farmer and rancher income through improved animal watering systems	\$90,000	Carol Baldwin Kansas State University
ENC21-201	Alternate Roots—Land Acquisition and Tenure Options	\$89,656	Tom Buller Kansas Rural Center
ENC19-181	Capacity Building in Urban Food Systems in the North Central Region	\$89,443	Dr.Cary Rivard Kansas State University
ENC15-146	Soil Health Bootcamp and Applications to Sustainable Vegetable Cropping: Professional Development for Local Agriculture Educators	\$64,307	Dr.Megan Kennelly Kansas State University
ENC11-125	Professional Training for Sustainable Agroforestry in Kansas	\$50,946	Nicole Ricci Kansas Forest Service Dr.Megan Kennelly Kansas State University
ENC09-107	Developing Extension Competence in Good Agricultural Practices and Farm Food Safety Planning for Fruit and Vegetable Growers in Kansas and Missouri	\$46,614	Jeffrey Callaway Kansas State University Dr.Cary Rivard Kansas State University
ENC09-108	Kansas NRCS Organic Training Program	\$54,074	Mary Fund Kansas Rural Center
ENC06-089	Building Capacity to Engage Latinos in Local Food Systems in the Heartland	\$75,000	Dr.Gerad Middendorf Kansas State University
ENC03-075	Grow Your Farmer's Market	\$54,211	Jerry Jost Kansas Rural Center
ENC00-047	Local Food to Local People: Enlarging a Regional Food System Through Nutrition Education	\$60,145	Nancy O'Connor Community Mercantile Education Foundation Nancy O'Conner Community Mercantile Education Foundation Inc
ENC99-046	Environmental Farm Analysis and Planning: A Whole Farm Planning Training Exercise Designed for Extension and NRCS Personnel	\$82,994	William Hargrove Kansas State University, KCARE

FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FNC23-1364	Creating a Sustainable Honey Bee Depository from Urban to Rural Settings	\$12,860	Dr.Robert Brooks META
FNC23-1366	Integrating intensive mushroom and vegetable production with a closed-loop indoor growing system	\$14,515	JACOB CHAPMAN Moose Paw Farm
FNC23-1395	Using Sainfoin and Silflower to Improve Beehive Health and Productivity in Kansas	\$14,152	Allen Stovall AJ Honey Farms LLC

FNC22-1323	Happy Seedlings, Happy Fish, Happy Family? Achieving All Three Through Function Stacking In An Integrated Seed Starting/Heating/Aquaponics System	\$15,000	Brad Dilts Serenity Farm
FNC22-1331	Exploring the production costs, utility, and value of by-products in Kernza® perennial grain production	\$29,980	Brandon Kaufman Brandon and Morgan Kaufman
FNC22-1342	Evaluation of weed suppression between Paper mulch, and straw mulch, and terminated winter cover crop on pumpkins and winter squash.	\$14,175	Miles Mentzer Mentzer Family Farm
FNC22-1347	Low-cost Farm-made Indigenous Soil Microbial Inoculant: Yield Impact on High Tunnel Grown Tomatoes	\$7,704	Kevin Prather Mellowfields Farm
FNC22-1349	Everybody Grows	\$29,997	Girard Sagmiller The gifted learning project
FNC21-1264	Trial of a combination plasticulture / matted row strawberry production system in central Kansas	\$5,898	Jonathan Conard Tenth Street Orchard
FNC21-1307	KS Fiber Hemp Variety Trials	\$26,250	Sarah Stephens KS Hemp Consortium
FNC20-1225	Red Kidney Bean production in Kansas	\$1,400	Jake Johannes Johannes Family Farms & Sacred Sun Cooperative Farm
FNC20-1230	Medicinal Root Production for Small Scale Agriculture	\$3,370	Jessica Layton Sacred Sun Farm
FNC20-1232	Market Allergy-Friendly Food Using Local Vegetables, Fruit, Proteins, and Value-added Products to Increase Small Farm Sales	\$27,000	Dr. James Leek Pat & Rachel's Gardens
FNC19-1161	Ancestral Mexica Farming: A Comparative Yield Analysis from the 1500s	\$8,908	Pantaleon Florez, III Maseualkaulli Farms
FNC19-1175	Research, Create, and Market Allergy-Friendly Food for Institutions Using Local Vegetables, Fruit, Proteins and Value-added Products to Increase Small Farm Sales	\$27,000	Dr. James Leek Pat & Rachel's Gardens
FNC18-1133	Adding Value to Small-farm Produce by Processing and Freezing Vegetables and Fruit	\$22,500	Dr. James Leek Pat & Rachel's Gardens
FNC18-1152	Evaluating the performance of alternative horticultural crops (Lavender) under various production systems to enhance agricultural diversity in the Flint Hills region	\$7,412	Aaron Yoder Flint Hills Lavender Farm
FNC17-1068	Exploration and Expansion of a Mobile Meat Market Concept for Kansas	\$22,500	Rosanna Bauman Bauman's Cedar Valley Farms
FNC17-1076	Evaluation and Comparison of Paper Pot Transplanter to Other Hand Transplanting Methods in No-dig beds and Cover Crop Residue	\$7,492	Brad Dilts Serenity Farm

FNC17-1093	Food Hub Development in the Rural Midwest	\$22,493	Katie Nixon Fresh Farm HQ dba Kansas City Food Hub
FNC17-1104	Lawrence Worm Farm, Sustainability in Food Waste Reclamation	\$14,305	Nicholas Ward Queen Alidore LLC
FNC16-1029	Exploring the Economic and Environmental Sustainability of No-Till Organic Sweet Potato Production	\$7,115	Tom Buller Kansas Rural Center
FNC16-1038	Portable Grazing System for Goats on Invasive Weeds and Brush	\$4,047	Jody Holthaus Meadowlark Extension District
FNC16-1039	Weed Control by Mechanical Implement, Specifically for Row Crop and No-Till Farm Operation	\$7,435	Jaryl Hudson Hudson Farms
FNC15-1020	Preserving the genetic diversity of acclimated feral and survivor stock honeybees for future use as breeding stock in local, diversified production of queen bees.	\$7,498	Gage Werner Werner Creek Farm
FNC14-959	Growing Mushrooms on Local Agricultural Byproducts	\$11,319	Mark Lumpe Wakarusa Valley Farm
FNC14-971	Economics of Grazing and Haying Cover Crops in North Central Kansas	\$7,223	Josh Roe B&H Ranch
FNC14-978	Feasibility, planning and purchase of Mobile Processing Unit (MPU) for Scaling up Free Range Poultry Meat Processing for High Volume Retail Market	\$22,500	Chris Sramek Sramek Family Farm, LLC
FNC13-897	Kansas Ranch and Range Management Internship Phase II	\$22,500	Calvin Adams Adams Ranch
FNC13-906	Exploring Edible Cactus Production as a New Specialty Crop in the Midwest	\$12,848	Katherine Kelly Two Birds Farm Alicia Ellingsworth CultivateKC
FNC13-934	Activating soil fertility in mulch-prepared small-plot commercial no-till	\$5,944	Ryan Stubby Gardens at Eighty Acres
FNC13-939	Soil microbial responses to cover crop use	\$7,500	Karen Willey Bluestem Farm
FNC12-863	Full Circle Aquaponics Demonstration Site	\$7,500	Alice Hill Beaver Creek Ranch
FNC12-895	Advanced Row Cover Management for Annual Raised-bed Strawberry Production in Eastern Kansas	\$5,644	Jerry Wohletz Wohletz Farm Fresh
FNC10-798	Kansas Ranch and Range Management Internship	\$18,000	Calvin Adams Adams Ranch
FNC10-808	South Central Kansas Residue Alliance, "A Framework for Change" One Producer, One Farm at a Time!	\$17,920	Leon Sowers Farmer, Project Coordinator Terry Hodgson SCKRA

FNC10-812	Organic Slot farming: a new approach to growing farming and gardening	\$2,517	Rachel Jefferson Oak Grove Neighborhood Association Isaac Jefferson
FNC10-827	Examine the practicality of using high tunnels on a rotational basis to increase sustainability on a small acreage.	\$5,201	Kay Neff Neff Family Farm
FNC10-829	Economic feasibility of using wood chip mulching to address the combined vineyard issues of 1) low organic matter, 2) weed control, and 3) irrigation costs	\$5,880	Jo Ann Kuhlmann
FNC10-830	Evaluating the suitability of low-trellises and various hop cultivars for small organic farm production in Northeast Kansas	\$6,000	Jill Elmers Moon on the Meadow farm
FNC09-753	Measuring the Value of Inter-Seeding Legumes into Established Cool Season Pastures in North Central Kansas — Part 2	\$6,000	Calvin Adams Adams Ranch
FNC09-782	Connecting Farmer to Consumer through Small Businesses of Rural Main Street	\$5,989	Carissa McKenzie Horse Creek Ranch
FNC09-793	Sustainable agriculture education and practicum for Kansas small farmers and ranchers using permaculture principles of ecological systems design and management	\$17,976	Steve Moring Vajra Farm Charles NovoGradac Chestnut Charlie's Organic Tree Crops Maryam Hjersted Prairie Lovesong Farm
FNC08-714	Bistro Kids Farm 2 School Program – Bringing Healthy, Locally Grown Food to the Next Generation	\$17,657	Diana Endicott Good Natured Family Farms
FNC08-725	Defining Our Production Region	\$14,900	Joseph Wilson Missouri Northern Pecan Growers
FNC08-732	Eat Your Peas! Entrepreneurial Farming and Nutrition Training for youth in Urban KC, KS	\$6,000	Angela Green
FNC07-646	Grapevine Bird Damage Control	\$6,000	Norman Jennings
FNC07-650	Can Straw Mulch and a High Tunnel Be Used to Better Grow Ginger in the Midwest?	\$5,320	Pov Huns Huns Garden
FNC07-660	Interseeding Legumes into Established Cool Season Pastures	\$2,759	Calvin Adams Adams Ranch
FNC07-683	Peony Flower Insurance for Early Market Blooms-the High Tunnel	\$5,985	Jo Anne Thomas
FNC06-604	A Comparison of Heritage Breed Rabbit and Commercial Breed Rabbit in Two Different Production Systems	\$6,000	Callene Rapp
FNC06-619	Microclimate Enhanced Movable High Tunnel with Retractable Top	\$5,992	Terence Herl
FNC06-628	Small Poultry Farm Education Project	\$5,998	Christine Allen

FNC06-634	Urban Farming	\$5,017	Beverly Pender Soul & Soil Rainbow Gardens
FNC05-551	Can Screened High Tunnels Extend the Growing Season of Bitter Melon in the Midwest?	\$6,000	Pov Huns Huns Garden
FNC05-552	Extreme Makeover: Prairie Restoration	\$5,702	Becky Walters
FNC05-560	Using Meat Goats to Control Sericea Lespedeza	\$2,461	Darren Jackson
FNC05-572	Multi-Species Pasture Stacking	\$6,000	John Bauman
FNC05-577	Kansas City Organic High Tunnel Research Cooperative	\$17,975	Stu Shafer Sandheron Farm
FNC04-496	Homestead Range Renewal Initiative	\$6,000	Jane Koger
FNC04-499	Transition of a Conventional Beef Cattle Operation to Sustainable Agricultural Beef Cattle Operation and Evaluation of Alternative Pasture Usage and Hay Field Fertilization Practices in Northeast Kansas	\$5,863	Melvin Williams
FNC04-502	Sustainable Ongoing Agricultural Research (SOAR) Project Utilizing Sunflowers and Austrian Winter Peas as a Cover Crop to Produce Bio-Diesel Fuel and Organic Nitrogen Fertilizer	\$1,990	Irwin Porter Smoky Hills Resource Conservation and Development
FNC04-525	Pumpkin Patch Salsa	\$6,000	Becky Walters
FNC03-444	Lazy S Farms Cold Frame Production	\$5,898	Larry Sorell Lazy S Farms
FNC03-448	Clover 101: Can Clover Help Eastern Kansas?	\$1,847	Kevin Morrill
FNC03-449	Moveable High Tunnel	\$5,874	Karen Rains
FNC03-455	The Use of Cover Crops in Western Kansas Crop Rotation in Lieu of Summerfallowing, and the Economic Return of Both	\$4,635	Glenn Brands
FNC02-404	Farmer to Food Co-op Meat Marketing Project	\$18,000	Edward Reznicek Central Plains Organic Farmers
FNC02-422	Fragrant Rose Production for Small Farm Income Supplement	\$5,529	Sherry Davis
FNC02-426	Using Agroforestry to Winter Cattle	\$4,760	Dale Strickler

FNC01-342	Fairwillow Farm: A Small On-Farm Pork Processing Facility	\$4,932	Rodney Schroeder
FNC01-346	Control of Invasive Species Threatening Native Grasses in a Flint Hills Pasture	\$5,000	Harold Garner
FNC01-374	Can Shade Cloth and Mulch Extend the Greens Season in the Midwest Region?	\$5,000	Katherine Kelly Two Birds Farm
FNC01-383	Farmstead Heating with Biomass	\$5,000	Nathan Hyde
FNC00-319	Talkington's Family Farm Fryers	\$5,000	Keith Talkington
FNC00-329	A Farmer Network Model for Group Marketing and Purchasing	\$12,200	Harold Walker
FNC99-252	Organic Medicinal Herb Cultivation	\$5,000	Delores Conley
FNC99-275	Adding Value to Cows for Family Farmers	\$9,300	Alan Jones
FNC99-280	Kenaf: Ag Fiber of the Future?	\$4,630	DeWayne Craghead
FNC98-219	Inter-seeding Legumes into Fescue	\$1,455	Tom Mulroy
FNC98-220	Beef Alliance Association to Develop a Premium Market	\$3,650	Larry Becker
FNC98-222	Machinery Link, Co.	\$5,000	David Govert
FNC98-224	Economically Powered Water Supply Systems for Remote Locations	\$3,372	Donn Teske
FNC98-225	Creating Value in Pooled Cull Cow Sales	\$10,000	Myron Runft
FNC98-239	A Consumer Driven System to Natural Beef Marketing	\$9,449	Diana Endicott
FNC97-171	Creating the Link: Cooperative Marketing of Organic (All-natural) Beef	\$9,854	Diana Endicott
FNC97-180	Biological Control of Small Soapweed (Yucca glauca Nutt)	\$4,515	Richard Baldwin
FNC97-181	Comparing Controlled Microbial Systems (CMS) Composting to Conventional Composting to Piled Feedlot Manure	\$5,000	Rick Boller

FNC97-188	Machinery Link Co.	\$5,000	David Govert
FNC97-198	Tree Filter and Wetland Livestock Waste Management Plan	\$4,808	Bob Sextro
FNC96-142	Erosion-sensitive Farm Converted to a Clean-water Farm with a MIG System and Well-planned Calving Facility	\$4,947	Daniel and Mary Howell
FNC96-153	Cover Crop Inter-row Seeder for Row Crops	\$3,200	Ervin Ediger
FNC96-157	Prairie Hills Marketing Network: Marketing for Producers in Northwest Kansas	\$9,962	Jim Rowh
FNC95-111	Winter Barley Breeding: By the Public	\$2,526	Walter Pickett
FNC94-068	Utilizing Native Sandhill Plum as a Income-Producing Windbreak	\$3,689	Brenda Olcott-Reid
FNC94-080	Revegetation and Succession of Western Kansas Riparian Site	\$4,752	Carol Blocksome
FNC94-085	Cooler Development for Organic Meats and Produce	\$5,000	Dan Nagengast Kansas Rural Center, Inc
FNC93-041	Clear Hilum Organic Soybean Trials	\$2,150	David Vogelsberg
FNC93-048	Non-Chemical Weed Control in Row Crop Production	\$2,950	Jerome Berning
FNC93-052	Soil Conservation and Residue Management Demonstration	\$2,180	Clair Niles
FNC93-057	Evaluating Various Forage Combinations in a Rotational Grazing System	\$3,000	Kenneth King
FNC92-003	Comparing Various Rates and Application Methods of Liquid Swine Manure in Grain Sorghum Production	\$2,700	Darrell Parks
FNC92-004	Annual Alfalfa and Berseem Clover Interseeded into Winter Wheat for Fall Grazing and Green Manure	\$985	Oren Holle
FNC92-008	Comparing Various Grasses and Legumes for Dairy Cattle in a Rotational Grazing System	\$3,950	Kenneth King
FNC92-017	Fall-Sown Rye for Fall and Spring Grazing and Green Manure	\$2,315	Lee Quaintance
FNC92-020	Evaluation of Rotational Grazing in Established Mixed-Grass Pasture, and Interseeding Legumes into Winter Wheat	\$2,788	Charles McNeal

FNC92-021	Comparing Broadcasting and No-Till in Legume Establishment and using Beef Tallow for Round Bale Weather Protection	\$2,200	Tim Kunard Tim Kunard Farm
FNC92-023	Intensive Rotational Grazing System in the Flint Hills of Kansas	\$5,000	Pete Ferrell
FNC92-025	Development of Sustainable Crop Rotation System	\$3,400	Kenneth Wallingford

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GNC23-362	Harvest Weed Seed Control: An Integrated Approach to Sustainable Weed Management in Western Kansas	\$14,795	Dr.Sarah Lancaster Kansas State University Alec Adam Kansas State University
GNC23-365	UNDERSTANDING THE EFFECTS AND RELATIONSHIP OF REGENERATIVE AGRICULTURE PRACTICES ON GRAINS NUTRITIONAL QUALITY	\$11,863	Chuck Rice Kansas State University Carlos Bonini Pires Kansas State University Ignacio Ciampitti Kansas State University, Department of Agronomy Reuben McLean Grain Craft Cesar Guareschi Kansas State University
GNC23-375	Integrating long-lasting insecticide netting tactics into integrated pest management programs for food facilities	\$14,993	Dr.Kun Yan Zhu Kansas State University Dr.William Morrison, Ph.D. USDA-ARS Sabita Ranabhat Kansas State University
GNC22-346	Integrating Fall- and Spring-Planted Cover Crops for Weed Suppression in semiarid Central Great Plains	\$14,996	Vipan Kumar Kansas State University Dr.Johanna (Anita) Dille Kansas State University, Department of Agronomy Sachin Dhanda Kansas State University
GNC22-348	Does Community Well-Being Matter in Landscape Management of U.S. Farming Systems?	\$14,510	Dr.Katherine Nelson Kansas State University Jean Ribert Francois Kansas State University
GNC22-353	Expanding the Technical Food Safety Capacity of Small and Very Small Meat Processors in Kansas through Food Safety Program Development Workshops	\$14,594	Jessie Vipham Kansas State University Ellen Mendez Kansas State University
GNC22-357	Cover Crop Biomass Removal Rates to Optimize Livestock Production and Soil Health in No-Tillage Dryland Cropping Systems	\$14,845	Dr.Augustine Obour Kansas State University Logan Simon Kansas State University
GNC21-321	Using On-Farm Soil Health to Engage Research and Education Towards Sustainable Agriculture	\$14,832	Chuck Rice Kansas State University Ignacio Ciampitti Kansas State University, Department of Agronomy Dorivar Ruiz Diaz Kansas State University, Department of Agronomy Carlos Bonini Pires Kansas State University

GNC21-339	Weed Suppression by Grazed Winter Cover Crops with Varied Timing of Livestock Removal	\$14,839	Dr.Sarah Lancaster Kansas State University Lily Woitaszewski Kansas State University
GNC20-306	Defining Business Education for Small Scale Specialty Crop Farmers	\$10,000	Dr.Cary Rivard Kansas State University Megan McManus Kansas State University
GNC18-253	Improving Kernza® + Alfalfa Bicultures by Developing a Kernza® Crop Calendar, Identifying Compatible Germplasm, and Monitoring Changes in Soil Health Properties	\$11,891	Brandon Schlautman The Land Institute Spencer Barriball The Land Institute
GNC18-270	Monitoring Belowground Arthropods Associated with Cover Crops in Great Plain High Tunnel Systems	\$11,999	Dr.Cary Rivard Kansas State University Ashlee Skinner Kansas State University
GNC14-186	The Influence of Elevated Temperatures on a Residual Insecticide and Inert Dust to Disinfest Empty Bins Prior to On-farm Grain Storage	\$10,000	Subramanyam Bhadriraju Kansas State University Dr.Mike Montross University of Kentucky Jennifer Frederick Department of Grain Science and Industry
GNC14-190	Developing a Thermal Imaging System for On-demand Corn Temperature Profiles for Variable Rate Irrigation	\$10,000	Dr.Ajay Sharda Kansas State University Devin Mangus Kansas State University Biological and Agricultural Engineering
GNC14-191	Evaluating Camelina sativa as a Fallow Replacement Crop in Wheat Production Systems	\$10,000	Dr.Augustine Obour Kansas State University Eric Obeng Kansas State University
GNC12-147	Estimation of Soil N Availability for Tomato Production in High Tunnel vs. Open Field under Organic and Conventional Management	\$10,000	Dr.Rhonda Janke Kansas State University May Elfar Altamimi Kansas State University
GNC12-162	Implementation of Novel Grafting Methods and Rootstocks for Organic and Heirloom Tomato Growers in the Midwest	\$10,000	Dr.Cary Rivard Kansas State University Sarah Masterson Kansas State University
GNC12-163	Evaluating Interaction of Urban Farmers and Extension Educators in Metropolitan Kansas City	\$10,000	Dr.Rhonda Janke Kansas State University Caroline Tanner Kansas State University
GNC08-090	Laboratory, greenhouse and field based assessment of sodium acetate for control of plant bacterial speck disease	\$10,000	Dr.Megan Kennelly Kansas State University Xioyan Tang Kansas State University Xin Deng Kansas State University
GNC05-048	Soil and Crop Quality Under High Tunnel	\$10,000	Edward Carey Kansas State University Sharon Knewton Kansas State University
GNC04-040	Comparing Organic and Conventional Fertilization Methods for Cut Flower Production in Haygrove High Tunnels	\$10,000	Kimberly Williams Kansas State University Katherine Stolp Kansas State University
GNC03-019	Laboratory, Field and Farm Based Assessment of Compost and Compost Teas for Vegetable Crop Health	\$10,000	Edward Carey Kansas State University Chandrappa Gangaiah Kansas State University

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
ONC23-122	Water Catchment to Sustain Food Production in the Midst of Climate Crisis	\$49,401	Alicia Ellingsworth The Farm School at Gibbs Road Inc.
ONC22-104	Using perennial groundcovers for improved soil and nutrient retention in corn/soy production	\$39,691	Brandon Schlautman The Land Institute
ONC22-105	Increasing Industrial Hemp Acreage for Fiber and Grain with Planting Best Practices & Recommendations	\$40,000	Sarah Stephens KS Hemp Consortium
ONC20-074	Partnering in plant health: Improving our understanding of fruit tree diseases in Kansas	\$39,583	Dr.Megan Kennelly Kansas State University
ONC19-065	Alternate Weed Control Strategy in Sorghum Utilizing Companion Crops	\$32,187	Steve Swaffar No-Till On The Plains Inc
ONC18-038	Evaluating and Demonstrating Weed Control Options for Direct Seeded Fall Vegetable Crops	\$29,495	Tom Buller Kansas Rural Center
ONC18-048	Providing Ecosystem Services Utilizing Companion Crops with Sorghum	\$25,077	Steve Swaffar No-Till On The Plains Inc

YOUTH EDUCATOR GRANTS

Project #	Project Title	SARE Support	Project Leaders
YENC23-193	You Don't Have to Be Big to Be Profitable: Teaching Youth How to Meet Community Needs, Maintain a Farm System, and Treasure Family	\$6,000	Sarah Easdon Grace Heritage Dairy
YENC22-178	Aeroponics and Career Education	\$6,000	Sydney Hale Greenbush Education Service Center
YENC21-169	Lessons To Go: a Supplement to On-Farm, Hands-On Activities	\$4,000	Jennifer Thomas KC Farm School at Gibbs Road
YENC20-146	Going Hog Wild: A sustainable agriculture project raising pastured pigs. Students manage all aspects of pork production, breeding-to-market.	\$4,000	Jennifer Bauer Blue Valley Center for Advanced Professional Studies (CAPS)
YENC18-124	Bees 101	\$2,000	Britt Hopper B.E.e. Hopper Honey
YENC15-093	Oskaloosa Community Garden	\$2,000	Daniel Hissong Oskaloosa Public Schools
YENC13-060	Veryl Switzer/KSU Agriculture Camp - Dining @ The Farmer's Table	\$1,984	JohnElla Holmes Nicodemus Educational Camps
YENC09-011	Linking Sustainable Agriculture, Soil Quality, and Water Quality for 4th Graders of Cheney Lake Watershed, Central Kansas	\$2,000	DeAnn Presley Kansas State University, Department of Agronomy
YENC09-017	YOUth-KAN (Kansas Agricultural Network)	\$2,000	Rosanna Bauman Bauman's Cedar Valley Farms

YOUTH GRANTS

Project #	Project Title	SARE Support	Project Leaders
YNC12-065	Doorstep Harvest	\$400	Alex Bathurst
YNC10-049	Biochar production and application rate tests at Kansas City Community Farm	\$325	Noah Brady Youth Project
YNC10-064	Teaching Organic Agriculture at Market through Art and Fun	\$393	Evangeline Ellingsworth
YNC09-030	Sustainable Pest Control For Organic Pumpkins	\$400	Kevin Bauman
YNC09-044	Exploration of Decomposition with Trellising Materials	\$400	Brittney Blum
YNC08-004	Mulched vs. Unmulched Tomatoes and Water Usage	\$272	Jacob Chapman
YNC08-028	Little Horses/Big World Sustainable Agriculture	\$400	Cara Martin

**Total funding from the USDA SARE program to
Kansas
\$5,484,574**



For further information on projects, contact North Central SARE at (612) 626-3113 or ncrsare@umn.edu.

Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).