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.

Sustainable Agriculture Research & Education

www.sare.org

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

Wyoming

Project Highlight: *Growing and Marketing Ancient Grains in Wyoming*

Markets for ancient grains such as spelt, emmer, and einkhorn are growing due to their nutritional qualities and well-liked flavor. In addition, they are reported to require lower water and nutrient inputs than modern varieties. Caitlin Youngquist, Extension Educator at the University of Wyoming, considered that conducting research and working with farmers on these grains could help meet some of Wyoming's agricultural challenges. According to Youngquist, challenges include low soil fertility and quality, saline and alkaline soils, arid conditions, high crop evapotranspiration demands, and isolation from markets.

Youngquist and her partners studied the nitrogen and water demands of the three grains; evaluated crop performance in various growing regions of the state, quantified costs and benefits associated with growing ancient grains in the state; assessed impacts of growing conditions on grain quality; and worked to develop local markets for cooking and baking. The research was conducted at three University of Wyoming research stations in addition to five on-farm trials. The team hosted numerous presentations, baking workshops, Facebook Live events, and field days. They sent product samples to six food bloggers. Several bulletins and fact sheets were developed for the public from this project.

For more information on this project, see sare.org/projects, and search for project number OW19-340.

SARE in Wyoming

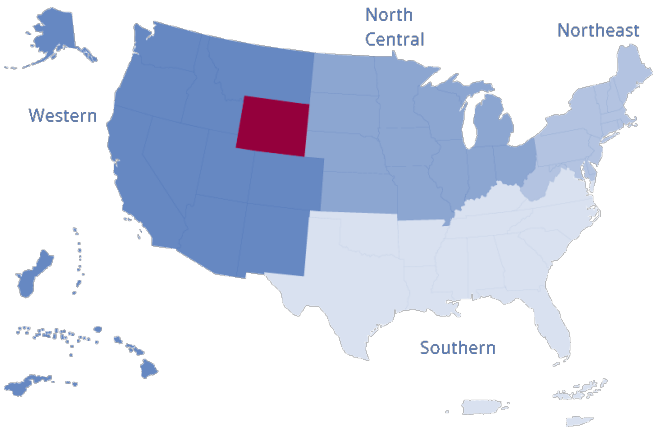
western.sare.org/sare-in-your-state/wyoming

$3,228,459 in total funding

59 grant projects

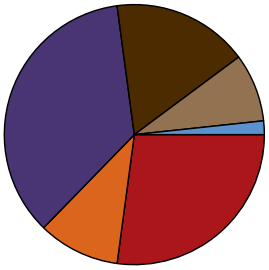
(since 1988)

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



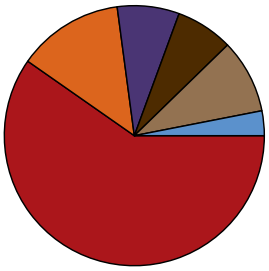
SARE Grants in Wyoming

Total awards: 59 grants



16 Research and Education
6 Professional Development Program
21 Farmer/Rancher
10 Graduate Student
5 On Farm Research/Partnership
1 Research to Grass Roots

Total funding: $3,228,459



$1,927,576
Research and Education
$425,624
Professional Development Program
$248,856
Farmer/Rancher
$230,089
Graduate Student
$297,082
On Farm Research/Partnership
$99,233
Research to Grass Roots

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:
western.sare.org/sare-in-your-state/wyoming

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 western.sare.org/state-pages/wyoming to learn more.

Bridger Feuz
University of Wyoming
(307) 783-0570
bmfeuz@uwyo.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 offrered may be included or excluded from the totals in this report depending on the grant program and SARE region.

AGRICULTURE PROJECTS FUNDED IN WYOMING

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

Wyoming has been awarded $3,228,459 grants to support 58 projects, including but not limited to, 15 research and/or education projects, 6 professional development projects and 21 producer-led projects. Wyoming has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
SW18-021	Integrating livestock and cover crops into irrigated crop rotations	$249,954	Dr.Jay Norton University of Wyoming John Ritten University of Wyoming
SW10-073	Prescribed Grazing to Sustain Livestock Production, Soil Quality, and Diversity in Rangeland Ecosystems	$197,268	Dr.Kenneth Tate University of California Davis
SW07-049	Evaluation of Camelina sativa as an alternative seed crop and feedstock for biofuel and developing replacement heifers.	$155,000	Dr.Bret Hess University of Wyoming
SW05-117	Integrated Crop and Livestock Systems: Dryland Crop Rotations to Improve Economic and Ecological Sustainability in the Central High Plains	$212,928	Dr.Steve Paisley University of Wyoming
SW04-051	Record Management Computer Database for Wyoming Cow-Calf Producers	$18,563	Dallas Mount University of Wyoming
SW03-008	Annual Legume-Based Systems for Sustainable Integrated Crop/Livestock Enterprise Diversification on the Central High Plains	$200,000	James Krall University of Wyoming
SW02-011	Ecomomic Impacts of Undernutrition on Fetal Programming during Early Gestation in the Cow: Effects on Growth, Development and Carcass Characteristics of Steers and Reproductive Efficiency of Heifers	$23,014	Stephen Ford University of Wyoming
SW98-071	Annual Legumes in Fallow as an Integrated Crop/Livestock Alternative in the Central Great Plains.	$173,979	James Krall University of Wyoming
SW97-018	Integrating nemade-resistant crops into sugar beet rotations	$113,184	David Koch University of Wyoming
SW96-010	Western Integrated Ranch/Farm Education	$36,326	John Hewlett University of Wyoming, Department of Agricultural Economics
SW96-029	Potential of a Corn/Annual Medic Intercropping System for Weed Control, Reduced Soil Erosion and Improved Forage Production	$95,100	James Krall University of Wyoming

SW95-007	Sustainable Rangeland Based Beef Cattle Production Systems	$155,260	Michael A. Smith University of Wyoming
SW94-034	Western Integrated Ranch/Farm Education	$90,000	John Hewlett University of Wyoming, Department of Agricultural Economics
SW94-006	Legume Cover Crops in Fallow as an Integrated Crop/Livestock Alternative in the Northern and Central Great Plains	$160,000	James Krall University of Wyoming
LW91-022	Brassica Utilization in Sugar Beet Rotations for Biological Control of Cyst Nematode	$47,000	David Koch University of Wyoming

RESEARCH TO GRASS ROOTS GRANTS

Project #	Project Title	SARE Support	Project Leaders
WRGR23-007	Cardboard Layering and Deep Compost Mulch for Rocky Mountain West Specialty Crops	$99,233	Ethan Page Central Wyoming College Jonah Sloven Sweet Hollow Farm

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
WPDP21-024	Rancher to Consumer Meat Connection	$75,648	Cody Gifford University of Wyoming
EW10-020	Ranch Sustainability Assessment: Economic, Ecological, & Social Indicator Monitoring	$85,000	Dr.John Tanaka University of Wyoming
EW10-012	Equipping Extension Educators to Address Producer Needs in Energy Education	$99,596	Sarah Hamlen MSU Extension
EW07-016	Educator Training for the Wyoming Cow-Calf Record Management System	$9,500	Dallas Mount University of Wyoming
EW00-024	Sustaining western rural landscapes, lifestyles, and livelihoods through agricultural enterprise diversification: a collaborative partnership.	$80,880	Boyd Byelich USDA-NRCS
EW94-018	Extension Sustainable Agriculture Training in Colorado and Wyoming	$75,000	Joe Hiller University of Wyoming, Cooperative Extension Service

FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FW23-426	TAG grazing Cattle as a Tool for Range Management: Targeting Cheatgrass and False Annual Wheatgrass to see the impacts of restoring native species	$25,000	RC Carter Carter Livestock
FW23-434	Goats - Invasive Weed Reduction & Native Plant Reintroduction on River Bottom & Sage Habitat	$20,300	Kate Brewster Big Sage Livestock
FW21-383	Trout Creek Pumpkin Patch: adding new revenue streams on a traditional cow/calf ranch	$14,750	Clint Wagon Wagon Ranch

FW09-319	Enhancing Rural Agricultural Family and Community Development in Wyoming Through Sustainable Bioful Crop Production	$49,873	Donn Randall Wyoming Business Council
FW08-307	Nitrogen Use Efficiency of Cool-Season Perennial Forage Grasses Planted With and Without Alfalfa Under Irrigation for Hay Production	$14,999	Dr.Blaine Horn University of Wyoming
FW08-303	Utilizing Soil Moisture and Microclimate Monitoring Technology to Reduce Water and Energy Needs and Improve Sugar Beet Crop Production for Producers in the Big Horn Basin Region of Wyoming	$29,923	Caryn Agee Washakie County Conservation District
FW06-021	Management of Iron Deficiency in Bean with Annual Ryegrass Interplantings	$9,505	Mike Ridenour
FW05-035	Brush Mower/Mixed Mountain Shrub Enhancement	$19,370	Myrtle and Clyde McColloch JY Ranch
FW04-030	Progeny Evaluation to Determine an Economically Based Index for Sire Selection	$7,500	Sandra Snider
FW04-035	Tree Windbreak	$7,500	Betty Rodriguez
FW03-004	Wind and Water	$6,000	Betty Rodriguez
FW02-210	Platte County Farmer's Market	$2,434	Susan Schamel
FW02-207	BOS Grass Grown Premium Beef Marketing	$7,495	James Millett
FW01-047	Prevention of High Altitude Disease Losses in Beef Cattle Utilizing PAP Test Scores, EPDs, and Gene-Mapping Techniques	$7,500	Jon Robinett Diamond G. Cattle Co. LLC
FW00-278	Internet Marketing of Organically Grown Wyoming Gourmet Garlic	$3,930	Steve Shesler
FW00-093	Pastured Poultry Production with Research on Sustainability of Grazing Lands	$1,477	Joleen and Greg Marquardt
FW99-060	Improving Ranch Unit Stability and Sustainability through Grazing Irrigated Alfalfa	$3,500	Rick March
FW96-023	Tall Stature Grasses for Winter Grazing and Spring Calving	$2,800	Matt Weber
FW95-045	Integrated Management to Improve Rangeland Health and Reduce Noxious Weeds	$5,000	Ogden Driskell Bearlodge Cattle Company
FW95-067	Initiation of Integrated Management	$5,000	Tom Bruce

FW95-076	Flitner Wetland Habitat Enhancement Project	$5,000	Mary & Stan Flitner

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GW22-231	Nitrogen Mineralization in High-Elevation Hay Meadow Soils for Improved Fertility Management	$29,921	Urszula Norton University of Wyoming Daniel Adamson University of Wyoming
GW18-170	Evaluation of Pulse Crops for Dryland Production	$25,000	Dr.Carrie Eberle University of Wyoming Amberle Filley University of Wyoming
GW18-025	The Critical Role of Soil Microbiota to Sustainable Agriculture: Quantifying short-term microbial and vegetation feedback to intensive grazing.	$24,184	Linda Van Diepen University of Wyoming Emily Bean University of Wyoming, The Pennsylvania State University
GW17-059	Cattle Diets and Performance: Enhancing What We Know with Advanced Plant DNA Technology	$24,970	John Derek Scasta University of Wyoming Tamarah Plechaty University of Wyoming, Laramie & Unites States Department of Agriculture - Agricultural Research Service, Cheyenne, WY
GW16-038	Increasing sustainable agriculture through enhanced diagnostics with Brucella infection	$24,818	Dr.Brant Schumaker, DVM, MPVM, PhD University of Wyoming Noah Hull, MPH University of Wyoming
GW16-068	Conservation biological control of alfalfa weevil in Wyoming	$7,280	Makenzie Benander University of Wyoming
GW15-020	Economic and Environmental Sustainability of Irrigated Grass-Legume Mixtures	$24,998	Dr.Anowar Islam University of Wyoming Albert Adjesiwor University of Wyoming
GW14-023	Improving Feed Efficiency in Sheep Through Rumen Manipulation and Producer Adoption	$25,000	Dr.Kristi Cammack University of Wyoming Dr.Melinda Ellison University of Idaho
GW11-007	Impacts of age on residual feed intake and its effect on reproductive parameters and profitability in ewes	$24,990	Dr.Kristi Cammack University of Wyoming Dr.Rebecca Cockrum Colorado State University
GW08-016	Potential of Managing Iron and Zinc Deficiency in Dry Beans with Interplantings of Annual Ryegrass and Increased Bean Density	$18,928	Andrew Kniss University of Wyoming Emmanuel Omondi University of Wyoming - Dept 3354

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
OW23-380	Enhancing producer decision making: Lamb feeding strategies and meat quality assessment in the Katahdin sheep breed	$75,000	Cody Gifford University of Wyoming Dr.Hannah Cunningham-Hollinger University of Wyoming Stewart Whit University of Wyoming
OW21-363	Kernza® in Wyoming: Evaluating Perennial Grains to Revitalize Wyoming Dryland Agriculture	$74,804	Linda Van Diepen University of Wyoming

OW20-355	Does cattle selection matter? Testing larkspur-native vs larkspur-naïve cattle to reduce death losses on larkspur infested rangelands.	$49,991	Daniel Cook USDA-ARS-Poisonous Plant Research Laboratory Clint Stonecipher US Department of Agriculture - Agricultural Research Service - Poisonous Plant Research Laboratory Ben Green USDA-ARS-Poisonous Plant Research Laboratory Eric Thacker Utah State University
OW19-340	Growing and Marketing Ancient Grains in Wyoming	$49,995	Dr.Caitlin Youngquist SnapLands
OW10-313	Residual Feed Intake - Producer Adoption and Genetic Selection Potential	$47,292	Dr.Kristi Cammack University of Wyoming

Total funding from the USDA SARE program to Wyoming
$3,228,459

For further information on projects, contact Western SARE at (406) 994-4789 or wsare@montana.edu.

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