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 8,791 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...

New Mexico

Project Highlight: *Hill-Climbing Cows May Benefit Ranchers*

Most would say that cows don't go up steep slopes, climb hills or travel far from water, but some just take off for the hills. As grazers, cattle provide ecological benefits to natural areas and help control invasive weeds, but overgrazing can damage riparian areas and can affect downstream water quality. A possible solution? Hill-climbing cattle, which could increase ranchers' stocking rates as much as 30 percent and improve the productivity of rangeland in the western United States.

New Mexico State University Range Science Professor Derek Bailey and his team of scientists across the West used SARE funding to look at the genetics of behavior—specifically to identify the genes linked to hill climbing—to develop an inexpensive screening test that allows ranchers to select stock with a genetic disposition to wander and climb. By tagging cattle on ranches with GPS collars, tracking their every move and drawing blood from the hill-climbers to identify genetic commonalities, Bailey's team collected and analyzed enough data to believe that an affordable screening test is possible and that the hill-climbing trait does not come with significant genetic downsides. More hill-climbing cows would allow ranchers across the West to use harder-to-reach areas for grazing and to thus better manage their rangeland.

For more information on these projects, see sare.org/projects, and search for project number SW15-015.

SARE in New Mexico

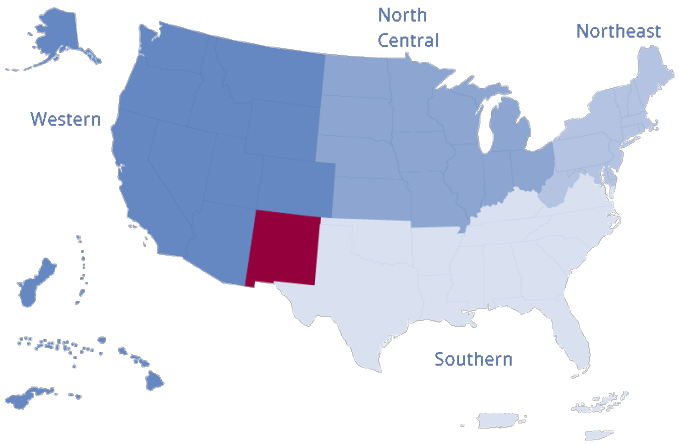
western.sare.org/state-profiles/new-mexico/

$1,054,129 in total funding

21 grant project

(since 1988)

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



SARE in New Mexico

Grants awarded 2019–2024

Total awards: 21 grants

12	Farmer/Rancher
1	Research and Education
4	On Farm Research/Partnership
2	Graduate Student
2	Research to Grass Roots

Total funding: $1,054,129

$289,074	Farmer/Rancher
$273,591	Research and Education
$249,319	On Farm Research/Partnership
$50,612	Graduate Student
$191,533	Research to Grass Roots

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:

1,864 farmers participated in a SARE-funded project

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

24 farmers changed a practice

Learn about local impacts at: western.sare.org/sare-in-your-state/new-mexico/

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-profiles/new-mexico/ 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 NEW MEXICO

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

New Mexico has been awarded $3,457,173 grants to support 86 projects, including but not limited to, 13 research and/or education projects, 6 professional development projects and 57 producer-led projects. New Mexico has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
SW23-953	The Future of Livestock Grazing on New Mexico's National Forests	$273,591	Dr.Cristóbal Valencia Northern New Mexico Stockman's Association Dr.Casey Spackman New Mexico State University
SW18-059	On-Farm Investigations of Stale Seedbeds with Biofumigation for Improved Management of Weeds and Soil-Borne Diseases in Chile Pepper	$131,461	Dr.Brian Schutte New Mexico State University
SW15-015	Implementation of Genetic Selection for Grazing Distribution to Make Cattle Grazing in the Western US More Sustainable	$271,217	Dr.Derek Bailey New Mexico State University
SW09-054	Enhancement of Sustainable Livestock Grazing through Selection and Training	$229,527	Dr.Derek Bailey New Mexico State University
SW09-041	Winter Production of Leafy Greens in the Southwestern USA using High Tunnels	$193,879	Dr.Steven Guldan New Mexico State University
SW07-606	Extending the Grazing Season and Integrating Crops and Livestock to Sustain Small Farms and Ranches in the Southern Rockies	$7,381	Dr.Steven Guldan New Mexico State University
SW04-144	Southwest Marketing Network: Expanding Markets for Small-Scale Alternative and Minority Farmers and Ranchers	$124,817	Pamela Roy Farm to Table
SW02-053	Ganados del Valle Family Ranch Sustainability Program	$70,000	Arlene Valdez Ganados Del Valle; Los Ojos, NM Melinda Salazar Ganados Del Valle; Los Ojos, NM

SW01-004	Field-to-Table Technical Outreach Package for Smaller-Scale Farmers & Ranchers in the Front range	$48,500	Greg Shultz NewFarms
SW98-060	Acequia Conservation Management	$49,272	Stephen Reichert Tierra y Montes Soil & Water Cons. District
SW96-027	The Production of New, Existing, and Native Crops Under Conventional and Organic Production Practices in Costilla, New Mexico, Garcia, Colorado, and at Taos Pueblo	$100,000	Craig Mapel New Mexico Department of Agriculture
SW95-018	Extending the Grazing Season and Integrating Crops and Livestock to Sustain Small Farms and Ranches in the Southern Rockies	$141,602	Dr.Steven Guldan New Mexico State University
LW93-033	Development of Sustainable Crop and Livestock Production Systems for Land in the Conservation Reserve Program (CRP)	$104,000	Rex E. Kirksey New Mexico State University, Agricultural Science Center

RESEARCH TO GRASS ROOTS GRANTS

Project #	Project Title	SARE Support	Project Leaders
WRGR22-006	Building Comb from Castle to Castle: Collaborations between Queen Breeders & Researchers for supporting Adaptive Reproductive Practices	$100,000	Melanie Kirby Zia Queenbees Farm & Field Institute
WRGR21-005	Native Habitat Enhancement for IPM in New Mexico Vineyards	$91,533	Maryel Maryel Lopez New Mexico State University Gill Giese Arkansas State University

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
EW15-011	Developing Digital Tools to Improve Soil Sampling and Analysis for Sustainable Agriculture in the Western U.S	$59,356	Dr.Robert Flynn New Mexico State University
EW13-021	A Distance Learning Approach to Whole Farm Planning	$60,400	Dr.Ann Adams Holistic Management International

EW08-016B	Professional Training for Developing a Hands-On Organic Weed Management Learning Center for Commercial Market Gardens in Local Communities	$47,934	Beth LaShell Fort Lewis College
EW04-006	Increasing the Effectiveness of Field Agent Response to Producer Requests for Alternative Marketing Assistance	$95,939	Teresa Mauerer NCAT
EW02-006	Here Forever Farm and Ranch Education	$30,000	Jaime Castillo New Mexico State University
EW95-001	Educational Video on Watershed Management Practices for Pinyon-Juniper Ecosystems	$24,000	Howard Shanks South Central Resource Cons

FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FW24-022	Development and dissemination of an aquaponic-compatible strain of Nile Tilapia, Oreochromis niloticus	$25,000	Dr.Damon Seawright AmeriCulture, Inc.
FW24-013	Implementation of Big Sacaton, Sporobolus wrightii, Grass Wind Strips on Arid Range-and Farmland for Soil, Water and Biodiversity Enhancement	$24,967	Starrlight Augustine Institute of Ecotechnics dba Synergia Ranch Organic
FW24-006	Can virtual fencing be used to improve rangelands' resilience to drought?: An Investigation by Young Ranchers in New Mexico	$24,948	Jaimi Peterson Peterson Land and Cattle LLC
FW24-002	Virtual Fencing Bison Trial for Enhanced Ecological Restoration	$25,000	Maggie Knapp NM Bison Restoration Network
FW23-430	Regenerating Desertified Agricultural Land in Northern New Mexico	$25,000	Juliana Ciano Reunity Resources
FW23-427	Regreening the Waterfall Meadow at Hacienda Dominguez & Chelenzo Farms	$25,000	Lorenzo Dominguez Hacienda Dominguez & Chelenzo Farms
FW23-411	Virtual fencing to build soil health, range productivity, and rancher wellbeing in drought-prone ranches	$24,999	Jorge Ramirez Taiban Ranch

FW22-404	On-Field Trial of Cover Cropping and Johnson-Su Microbial Inoculations	$24,760	Carl Richard Pata Viva Farm Management Inc.
FW22-403	Extensive vs Intensive Kidding practices of goats in multi-species grazing programs in North East New Mexico	$24,445	Sydney Franz K&C Boer Goats
FW22-399	Optimizing Monitoring and Biostimulant Practices for Sustainability in Orchards Contaminated by Herbicide Drift	$24,974	Mary Lucero JAL Farms
FW20-363	Compost application on rangeland in the semi-arid southwest for increased soil C storage and forage production	$19,981	Zachary Withers Polk’s Folly Farm
FW19-357	The use of goat herding techniques to reduce the effects of predation while improving rangeland health in the high plains of New Mexico	$20,000	Emily Cornell Sol Ranch LLC
FW18-019	Provencio Soil Improvement Project	$19,976	Ed Provencio Ed Provencio
FW18-023	Establishing and Maintaining Mite Resistant Nucleus Colonies for the Sustainable Apiary Using USDA Russian and VSH Queen Bees	$16,980	John Gagne San Juan Apiaries
FW18-028	Greenhouse Energy Storage & Transfer using Water	$7,565	Kemper Barkhurst Bluefly Farms, LLC
FW16-035	A Comparative Study of Shading Systems to Control the Beet Leafhopper and Reduce Beet Curly Top Virus in Heirloom Tomato Fields	$19,909	Peter Sinanian TomatoCulture LLC
FW16-028	Passive Solar Herb Drying Project	$18,999	Dr.Tomas Enos El Milagro Herbs, Inc.
FW15-045	Lavender Intercropping and Soil Management	$13,665	Kemper Barkhurst Bluefly Farms, LLC
FW15-037	Aerated Compost Tea- Field Guide	$14,560	Minor Morgan North Valley Organics

FW13-122	Making Roller Crimping a Reality in the Southwest	$9,155	Dale Rhoads Rhoads Farm Joran Viers New Mexico State University
FW12-096	The Rocky Mountain Survivor Queenbee Cooperative	$25,000	Melanie Kirby Zia Queenbee Co. Julie McIntyre US Fish & Wildlife Service
FW12-039	Distilling Essential Oils from Southwest Medicinal Plants	$15,000	Dr.Tomas Enos El Milagro Herbs, Inc.
FW11-043	Assessment of the Economic Viability of High-Value Greenhouse Production	$14,743	Margaret C Campos Comida de Campos
FW11-005	Pollinator Forage Development	$15,000	Heather Harrell For the Love of Bees Les Crowder For the Love of Bees
FW11-018	Cotton Gin By-Products (CGB)/Dairy Manure Composting for Desert Farming	$13,336	Dr.Robert Woody
FW11-021	Trials and Informing Regional Farmers about Organic Weed Control Methods	$13,163	Dale Rhoads Rhoads Farm
FW11-027	Testing Traditional Methods of Pest Mitigation	$29,434	Joseph Alfaro Valle Encantado
FW11-030	Pepper (Capsicum annum) Cultivation, Conservation, and Soil Ecology in Low-Input and Certified Organic Agricultural Systems	$19,585	Loretta Sandoval Owner
FW10-038	Restoring Conservation Reserve Program Land to Health and Productivity	$13,112	Kelly Boney Outlaw Land Improvement Company, Inc
FW10-010	Operation of a Subsurface Drip Irrigation (SDI) system under National Organic Plan (NOP) Standards	$14,560	Minor Morgan North Valley Organics
FW09-049	Organic Weed Control in Perennial Navajo Tea Greenthread	$15,000	Steve Heil
FW09-047	La Placita Gardens Composting Research Project	$15,000	Abino Garcia Mayordomo La Placita Gardens Andrea Botero LA PLAZITA INSTITUTE

FW09-041	Camino de Paz Orchard & Berry Research & Education Program	$15,000	Greg Nussbaum Camino de Paz Farm
FW09-008	The Use of Two Mesilla Valley, NM Agricultural Byproducts to Create a Needed Organic Material Soil Amendment	$14,750	Dr.Robert Woody
FW08-320	Small Acreage Farms Enlisting Organic and Good Agriculture Practices (SAFE O-GAPs),	$29,750	Nancy Flores New Mexico State University Dr.Nancy Flores new mexico state university
FW08-004	Manipulating Sandpaper Oak for Livestock and Wildlife Forage and Cover	$15,000	Cheryl Goodloe Carrizon Valley Ranch Sid Goodloe Carrizon Valley Ranch
FW07-032	Southwest Survivor Queenbee Project	$15,000	Melanie Kirby Zia Queenbee Co.
FW06-321	Growing and Marketing Dye Plants as Alternative Crops	$20,000	Charles Martin New Mexico State University Del Jiminez New Mexico State University
FW05-011	Solar Energy for Sustainable Year-round Production	$9,683	Don Bustos Santa Cruz Farm
FW02-018	Desert Shrimp	$12,000	R. Mack Bell
FW01-036	Regional Producer's Improvement Project for High Quality Eggs and Other Poultry Products	$10,500	Steve Warshawer Beneficial Farm
FW01-014	Altenative Crops for the Costilla Valley in New Mexico Adoption, Application, Added Value of Product	$10,000	Teresa Young NMSU Coop Ext
FW01-002	Northeast New Mexico Pecan Research	$2,000	Lem Chesher USDA-ARS
FW00-099	Comparing Irrigation Methods for Organic Wheat Production	$10,000	Lonnie Roybal Sangre de Cristo Growers Coop.
FW99-044	Verification of Bat Predation of Pests on a 60,000 Acre Irrigated Farm	$4,000	James Dangler

FW99-078	A Temporary Step to a Permanent Solution: Use of Strawbales to Construct a Wind Barrier and System of Terrace Planting Beds	$1,760	Fatou Gueye
FW99-008	Passive Solar Greenhouse Construction and Growing Trial	$5,000	Cathy Hope
FW98-019	Using a Cultivable Catchment System to Establish a Dryland Commercial Truck Farm	$2,700	John Leaf
FW98-030	Permanent Irrigated Pasture Demonstration Project Reducing Irrigation Water Use	$3,100	Milford Denetclaw
FW98-032	The Sustainable Use of Cover Crops in an Annual Vegetable Production System in Northern New Mexico	$4,289	Don Bustos Santa Cruz Farm
FW97-042	Value Added Wheat Production	$3,500	Tom Seibel
FW97-057	Limiting Gopher Deprivation By Time-Control Livestock Grazing	$3,500	Matt Schneberger
FW96-001	Increasing the Value of Irrigated Pastures	$4,200	Darrell Baker
FW96-046	Test Plot Demonstration for Organically Produced Small Grains, Phase II	$5,000	Lonnie Roybal Sangre de Cristo Growers Coop.
FW95-007	Municipal Sludge and Legumes as Soil Builders	$4,290	Pete Tatschl
FW95-017	Gila Permitees Association Elk Study	$5,000	Matt Schneberger
FW95-003	Test Plot Demonstration for Organically Produced Small Grains, Phase I	$5,000	Lonnie Roybal Sangre de Cristo Growers Coop.

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders

GW21-226	Cover Crops for Improving Nitrogen Use Efficiency in a Semiarid Irrigated Forage Rotation	$20,612	Dr.Rajan Ghimire New Mexico State University Pramod Acharya New Mexico State University Vance Dewbre Kiva Farms, LLC Pramod Acharya New Mexico State University
GW21-220	Phytochemical Changes and Product Potential of NM Grown Hemp Varieties as Influenced by Production Location and Cultural Practices	$30,000	Dr.Catherine Brewer New Mexico State University Hanah Rheay New Mexico State University

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
OW23-379	Compost-derived microbial dispersal in rangelands	$74,858	Dr.Eva Stricker University of New Mexico
OW21-362	Building productivity and soil health with erosion control structures in arid rangelands: effects of organic amendments and seeding.	$74,932	Eva Stricker Quivira Coalition
OW20-353	Initiation of a New Mexico Participatory Vegetable Breeding Program	$49,571	Dr.Charles Havlik NMSU Agricultural Science Center at Los Lunas Dr.Bradley Tonnessen New Mexico State University Dr.Stephanie Walker New Mexico State University
OW19-341	Evaluation of water and feed intake of purebred cattle in confinement and on arid rangelands, and its implications on selection principles	$49,958	Dr.Marcy Ward New Mexico State University Dr.Craig Gifford New Mexico State University Dr.Samuel Smallidge New Mexico State University
OW18-034	Pairing Groundwater and Climate Data to Inform Sustainable Ranch Management in Uncertain Times	$49,995	Dr.Rossana Sallenave New Mexico State University
OW12-024	The Rocky Mountain Survivor Queenbee Cooperative	$25,000	Melanie Kirby Zia Queenbee Co.

Total funding from the USDA SARE program to New Mexico
$3,457,173

For further information on projects, contact Western SARE at (406) 994-4785 or wsare@montana.edu.

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