**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 $308 million to more than 7,395 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.

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

**Montana**

Project Highlight: *Improving the Benefits of Applied Nitrogen*

Broadcast applications of urea are a common management practice for large-acreage, no-till, dryland winter wheat producers in Montana. But when urea is applied to the soil surface, a significant amount of nitrogen can be lost when it converts to ammonia gas and enters the atmosphere in a process known as volatilization. Farmers face economic losses due to reduced yield or crop quality from inadequate nitrogen fertility, and ammonia emissions contribute to environmental pollution and nitrogen enrichment of natural ecosystems.

With SARE funding to address the problem, Montana State soil scientist Richard Engel conducted on-farm trials over four seasons to identify soil and environmental conditions under which urea applications were most susceptible to ammonia loss, and to identify management practices to reduce those losses. Based on the findings, Engel’s team recommends against surface-applying fertilizer to frozen or wet ground, particularly during the over-winter period. Applying it during the spring following thaw resulted in lower ammonia volatilization loss. By following the team’s recommendations to fertilize in the spring and incorporate the fertilizer into the soil when possible, a majority of Montana’s wheat growers are reducing air pollution and saving about $5 million a year through reduced fertilizer loss and increased yields.

For more information on this project, see [sare.org/projects](http://sare.org/projects), and search for project number SW10-050.

**SARE in Montana**

[western.sare.org/sare-in-your-state/montana](http://western.sare.org/sare-in-your-state/montana)

$8,119,936 in total funding

123 grant projects

(since 1988)

For a complete list of grant projects state by state, go to [www.sare.org/state-summaries](http://www.sare.org/state-summaries)

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[www.sare.org](http://www.sare.org)
SARE Grants in Montana

Total awards: 123 grants

- 1 Enhanced State Grants
- 33 Farmer/Rancher
- 15 Graduate Student
- 9 On Farm Research/Partnership
- 21 Professional Development Program
- 43 Research and Education
- 1 Research to Grass Roots

Total funding: $8,119,936

- $24,998 Enhanced State Grants
- $372,219 Farmer/Rancher
- $343,767 Graduate Student
- $349,613 On Farm Research/Partnership
- $1,225,264 Professional Development Program
- $5,729,316 Research and Education
- $74,759 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/montana

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/montana to learn more.

Patrick Mangan
MSU Ravalli County Extension
(406) 375-6611
pmangan@rc.mt.gov

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.
Montana has been awarded $8,094,938 grants to support 121 projects, including but not limited to, 42 research and/or education projects, 21 professional development projects and 33 producer-led projects. Montana has also received additional SARE support through multi-state projects.

### 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>
| SW20-915   | Developing an integrated management decision framework for cheatgrass control  | $349,315     | Lisa Rew  
Montana State University  
Andrew and Hilary Andersen  
J Bar L Ranch  
Jim Berkey  
The Nature Conservancy  
Amber Burch  
Beaverhead County Weed District  
Daphne and Kevin Chester and Crowe  
Double C Ranch Holdings  
Kyle Cutting  
US Fish, Wildlife Service  
Eric and Stephanie Hansen  
Hansen Livestock Company  
Jeff Johnson  
Johnson Ranch  
Dr. Jane Mangold  
Montana State University  
Kara Maplethorpe  
Beaverhead County Weed District  
Allen and Yvonne Martinell  
Lee Martinell Ranch  
Dr. Bok Sowell  
MSU - Animal & Range Sciences  
Dr. Cathy Zabinski  
Montana State University |
| SW19-907   | Snowbanks to Grassbanks                                                       | $349,710     | Dr. Bok Sowell  
MSU - Animal & Range Sciences  
Dr. Andrea Litt  
Department of Ecology, Montana State University  
Megan Van Emon  
Montana State University |
| SW17-016   | Soil acidity management of long-term no-till fields in Montana to prevent crop failure | $264,016     | Dr. Richard Engel  
Montana State University |
| SW17-080   | The Impacts of Integrating Livestock into Cropping Systems on Soil Health and Crop Production | $249,502     | Devon Ragen  
Montana State University |
| SW16-051   | Research and Demonstration of Minimum Tillage and Optimum Water Management in Sugarbeet Production in Eastern Montana | $247,410     | Dr. Chengci Chen  
Montana State University |
| SW15-028   | Examining, Optimizing, and Building Capacity for Montana's Local Beef to School Supply Chain | $220,021     | Dr. Carmen Byker Shanks  
Montana State University |
SW14-014  Sustainable Cropping Systems for Dual-Purpose Biennial Canola  $256,397  Dr. Darrin Boss  Montana State University  Dr. Steve Fransen, PhD  Washington State University

SW13-043  Evaluating Native Perennial Flower Strips for Enhancing Native Bees and Pollination Services on Farmlands  $170,951  Laura Burkle  Montana State University

SW13-056  Landscape Collaborative Grazing and Greater Sage Grouse Survival  $339,552  Dr. Bok Sowell  MSU- Animal & Range Sciences

SW12-108  Low Glycemic Potatoes, a value-added crop for Montana  $154,000  Dr. David Sands  Montana State Univ

SW11-099  Using cover crop mixtures to improve soil health in low rainfall areas of the northern plains  $354,405  Dr. Perry Miller  Montana State University

SW11-086  Degree Day Modeling and Economic Considerations of Insects and Weeds in Sheep Grazed Alfalfa, Grain, and Range Production Systems  $206,700  Dr. Hayes Goosey  Montana State University

SW10-050  Enhancing Cropping System Sustainability by Minimizing Ammonia-N Losses from Biological and Chemical Inputs  $190,009  Dr. Richard Engel  Montana State University

SW09-068  Integrating Biological Control with Targeted Sheep Grazing to Suppress Spotted Knapweed  $49,865  Rachel Frost  Montana State University  Jeff Mosley  Montana State University

SW09-061  Infrastructure Support for Small Livestock Processing Facilities  $46,796  Dr. Jane Boles  Montana State University

SW07-013  Evaluation of Alfalfa Weevil (Coleoptera Curculionidae) Densities, Weed Abundance, and Regrowth Characteristics of Alfalfa Grazed by Sheep.  $96,817  Dr. Hayes Goosey  Montana State University

SW07-025  Grower-based selection of varieties and systems for wheat stem sawfly control  $125,000  Dr. Luther Talbert  Montana State University

SW07-028  Is Sulfur Cinquefoil a Candidate for Control with Sheep and Goats?  $54,250  Jeff Mosley  Montana State University  Rachel Frost  Montana State University

SW07-603  Developing a free on-line excel based enterprise budget decision support program to evaluate the incorporation of sheep into farm systems as an alternative to pesticide and mechanical methods of weed and insect control  $10,000  Dr. Hayes Goosey  Montana State University

SW06-006  Survey and Economic Analysis of Montana Farms Utilizing Integrated Livestock-Cereal Grain (Ley Farming) Systems  $91,500  Dr. Chengci Chen  Montana State University

SW06-075  Does Timing of Defoliation Affect Spotted Knapweed Seed Viability and Germination?  $62,600  Tracy Brewer  Park County Extension - Montana State University  Dr. Tracy Mosley  Montana State University Extension
Developing Distance Learning Based on Perceptions and Knowledge of Producers and Agricultural Professionals

Methane Recovery from Small Dairy Operations

Ecologically Based Integrated Weed Management to Restore Plant Diversity

Factors Affecting Alfalfa Stand Longevity in Montana

Increasing Crop Water Use Efficiency in Advanced No-Till Systems

Using Crop Diversity in No-till and Organic Systems to Reduce Inputs and Increase Profits and Sustainability in the Northern Plains

An Alternative to Traditional Wheat Stubble Management Using Sheep to Control Pests and Improve Soil Nutrient Cycling

Selecting Cattle to Prevent Grazing Distribution Problems

Comparison of Pest Management Interactions in Spring Wheat-Cover Crop and Spring Wheat-Fallow Cropping Systems

Sustaining Agriculture and Community: Moving the Farm Improvement Club Program Beyond the Farm Gate

The Sustainable Farming Quarterly (SFQ) A Regional Newsletter

Sustainable Farming Quarterly

Regional Farm and Research Center Matching System-FARMS

Farm Improvement Club Network for Sustainable Agriculture

Specifying and Analyzing Whole-Ranch Systems for Sustainable Range Livestock Production in Environmentally Sensitive Areas

Practical Education in Sustainable Production Systems
Nancy Matheson
Alternative Energy Resources Organization (AERO)

LW89-014 Low-Input Legume/Cereal Rotations for the Northern Great Plains/Intermountain Region, $162,000
James Sims
Montana State University

LW89-016 Bio-Priming for the Control of Pythium Reemergence Damping-Off in Vegetable Crops, $14,984
Nancy Callan
Montana State University

LW89-019 Livestock Health and Nutrition Alternatives: A Western States Conference, $5,000
Al Kurki
Alternative Energy Resources Organization (AERO)

LW88-006 Soil-building Cropping Systems Conference-Legumes and Other Green Manures in Cropping Systems of The Northern Plains, Rockies and Intermountain Region, $7,700
Robert Gillespie
Alternative Energy Resources Organization (AERO)

RESEARCH TO GRASS ROOTS GRANTS

Project # | Project Title | SARE Support | Project Leaders
--- | --- | --- | ---
RGR20-009 Montana Food Economy Initiative | $74,759 | Lindsay Ganong
AERO
Loren Bird Rattler
Blackfeet Tribe

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project # | Project Title | SARE Support | Project Leaders
--- | --- | --- | ---
PDP20-020 Building Internal and Community Capacity for the Blackfeet Nation Through Agriculture | $73,795 | Will Seeley
Blackfeet Tribe: Agriculture Resource Management Plan
Loren BirdRattler
Blackfeet Agriculture Resource Management Plan

WPDP19-15 Sustainable Beef Cattle Production: Ranch to Ribeye | $57,310 | Megan Van Emon
Montana State University
Colleen Buck
Montana State University
Callie Cooley
Montana State University
Molly Hammond
Montana State University
Elin Kittelmann
Montana State University
Kari Lewis
Montana State University

EW18-027 Building Internal Capacity for the Blackfeet Tribe Agricultural Resource Management Plan (ARMP) | $52,155 | Loren Bird Rattler
Blackfeet Tribe

EW18-011 Pheromones as Tools for Monitoring the Insect Pests in the Northern Plains - Instructive Tools for Agricultural Professionals | $73,510 | Dr. Michael Ivie
Montana State University-Bozeman

EW17-011 Integrated Parasite Management: Train the Trainer | $74,189 | David Scott
National Center for Appropriate Technology

EW16-029 Best Management Practices (BMPs) for Mitigating Herbicide Resistance in the Northern Great Plains-Educational Tools for Agricultural Professionals | $68,871 | Dr. Prashant Jha
Montana State University, Southern Agricultural Research Center, Huntley, MT
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tr>
<td>EW16-036</td>
<td>Catalyzing Increased Agricultural Sales through a Common Understanding of Montana’s New Food Modernization Law</td>
<td>$22,332</td>
<td>Jennifer Hill-Hart AERO</td>
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<tr>
<td>EW15-009</td>
<td>Conservation and Augmentative Biological Control in the Northern Plains – Providing Tools for Agriculture Professionals</td>
<td>$68,182</td>
<td>Dr. Michael Ivie Montana State University-Bozeman</td>
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<td>EW13-014</td>
<td>Enhancing the Exploring Energy Efficiency &amp; Alternatives (E3A) Curriculum</td>
<td>$42,277</td>
<td>Milton Geiger University of Wyoming Extension</td>
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<td>Dr. Glen Whipple University of Wyoming Extension</td>
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<tr>
<td>EW12-004</td>
<td>Tour of sustainable Small Grain Production in Eastern Washington</td>
<td>$7,350</td>
<td>Dan Picard MSU Extension-Pondera County Jesse Fulbright Montana State University</td>
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<tr>
<td>EW12-006</td>
<td>Montana State University Extension Range Management Institute</td>
<td>$60,000</td>
<td>Dr. Tracy Mosley Montana State University Extension</td>
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<tr>
<td>EW11-012</td>
<td>Wildlife Damage Control for Traditional and Organic Farmers</td>
<td>$96,053</td>
<td>Dr. Jim Knight Extension Wildlife Specialist</td>
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<tr>
<td>EW01-007</td>
<td>Training Tour 2002-03-04</td>
<td>$30,024</td>
<td>Jonda Crosby Alternative Energy Resources Organization</td>
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<tr>
<td>EW01-016</td>
<td>Growing Our Own: Communities That Sustain Entrepreneurs</td>
<td>$52,483</td>
<td>Richard Williams Montana State University Extension Service</td>
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<td>EW99-015</td>
<td>Harvesting the Wealth: of AERO’s Farm and Ranch Improvement Clubs</td>
<td>$60,000</td>
<td>Jonda Crosby Alternative Energy Resources Organization</td>
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<tr>
<td>EW99-008</td>
<td>Developing a Sustainable and Organic Master Gardener Horticulture Production Manual</td>
<td>$22,483</td>
<td>Helen Atthowe Missoula County Extension Service</td>
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<td>EW97-007</td>
<td>Sustainable Agriculture Youth Education: Professional Dev. for Youth Program Leaders and Educators</td>
<td>$100,000</td>
<td>Jonda Crosby Alternative Energy Resources Organization</td>
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<tr>
<td>EW95-002</td>
<td>Sustainable Noxious Weed Management on Northwestern Rangelands</td>
<td>$43,800</td>
<td>Roger Sheley Montana State University</td>
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<tr>
<td>EW95-003</td>
<td>Agency Personnel Training in Riparian Monitoring and Management of Wildlife and Livestock in the Intermountain West</td>
<td>$98,000</td>
<td>Dr. Jim Knight Extension Wildlife Specialist</td>
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<td>EW95-012</td>
<td>Sustainable Agriculture Training Project A Model of Collaborative Learning</td>
<td>$31,450</td>
<td>Nancy Matheson Alternative Energy Resources Organization (AERO)</td>
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<td>EW94-006</td>
<td>Sustainable Agriculture Training Project: A Model of Collaborative Learning</td>
<td>$91,000</td>
<td>Nancy Matheson Alternative Energy Resources Organization (AERO)</td>
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**FARMER/RANCHER GRANTS**

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<tr>
<td>FW19-340</td>
<td>Improving Winter Greens Production and Storage for Cold Climate Farmers</td>
<td>$19,990</td>
<td>Katelyn Madden MGVC</td>
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<td>FW15-039</td>
<td>Making the Most of Fine Fleece: Environmental, Economic, and Social Costs and Benefits of Alternative Strategies for Marketing Sheep Wool</td>
<td>$10,646</td>
<td>Linda Poole (Prairie Shepherd)</td>
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<td>FW11-024</td>
<td>Organic Control of Perennial Weeds with Vinegar and Biologicals</td>
<td>$20,790</td>
<td>Jess Alger (Organic control of Perennial Weeds)</td>
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<td>FW10-042</td>
<td>Marketing J Bar L Ranch Grassfed Beef to Members of Conservation Organizations</td>
<td>$13,000</td>
<td>Bryan Ulring (J Bar L Ranches, LLC)</td>
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<tr>
<td>FW09-305</td>
<td>Composting Recommendations and Marketing Evaluation for Livestock Operations in Cold Semi-Arid Environments</td>
<td>$49,315</td>
<td>Thomas Bass (Montana State University)</td>
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<td>FW08-023</td>
<td>Pasture-Raised Heritage Turkeys in a Dryland Farming System</td>
<td>$6,413</td>
<td>Jacob Cowgill</td>
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<td>FW08-034</td>
<td>High-Nutrition Drought-Tolerant Corn</td>
<td>$30,000</td>
<td>Dave Christensen</td>
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<tr>
<td>FW08-016</td>
<td>Can Producers in Five Montana Counties Successfully Use No-Till Methods for Renovation of Irrigated and Dryland Pastures?</td>
<td>$29,999</td>
<td>Ron Carlstrom (MSU Extension- Gallatin County)</td>
</tr>
<tr>
<td>FW08-033</td>
<td>Sustainable Food and Bioenergy Systems: Student Internships Development Plan</td>
<td>$29,983</td>
<td>Dr. William Dyer (Montana State University)</td>
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<tr>
<td>FW08-301</td>
<td>Protecting High Quality Rangelands in Garfield County from Invasive Weed Spread</td>
<td>$20,000</td>
<td>Eric Miller (Montana State University)</td>
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<tr>
<td>FW05-012</td>
<td>Forage Winter Wheat Production for Grazing or Hay Production in Eight Montana Counties</td>
<td>$19,795</td>
<td>George Reich</td>
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<td>FW05-085</td>
<td>Demonstration of Leafy Spurge Management Using Sheep Grazing in a Leafy Spurge Barrier Zone</td>
<td>$9,960</td>
<td>Sharla Sackman (Montana State University Extension Service)</td>
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<td>FW04-018</td>
<td>Forage Winter Wheat Production for Jay or Grain in Gallatin County, Montana</td>
<td>$5,370</td>
<td>George Reich</td>
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<tr>
<td>FW02-036</td>
<td>Sheep and Cattle Grazing Complementarity Project</td>
<td>$5,055</td>
<td>Randall Tunby</td>
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<tr>
<td>FW01-032</td>
<td>Biological Weed Control: Education and Implementation</td>
<td>$7,500</td>
<td>Noah Poritz</td>
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<tr>
<td>FW01-085</td>
<td>Biological and Mechanical Control of Perennial Weeds in North-Central Montana</td>
<td>$6,387</td>
<td>Robert Quinn (Montana State University)</td>
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<tr>
<td>FW00-017</td>
<td>Establishing a Sustainable Program for Recycling and Propagation of Quality Flower Bulbs in a Wholesale Flower Production Operation</td>
<td>$2,197</td>
<td>Laura Smith</td>
</tr>
</tbody>
</table>
FW00-260 Test Marketing Campaign to Conduct In-Store Lamb Cooking and Recipe Demonstration for Montana Natural Lamb Cooperative in the Billings, Montana Market Area $9,300 Gayle Ott

FW00-282 Better Board of Trade.Com $8,054 David Oien

FW00-288 TEAM-Team Effort in Agricultural Marketing for the McAlpine Ranch $9,705 Clay McAlpine

FW00-314 Montana Arnica Web Page $870 Rod Daniel


FW99-102 Range Monitoring in the Badlands Grazing District $10,000 Jack McCuin

FW98-035 Annual Forages for Dryland Rotations $1,540 Vern Pluhar

FW98-093 Cull Potato Composting $7,500 Steve McCullough

FW96-007 Green Manure/Covercrop Combination Experiment $1,923 Rod Daniel

FW96-008 Legume Grazing in Rotation with Small Grains $4,000 Jess Alger Organic control of Perennial Weeds

FW96-073 Evaluation of Grass Species for Improved Pasture Management $4,800 Robert Lee

FW96-083 Vegetative Changes through Alternative Water Sources $2,500 Dale Veseth

FW95-078 Managing a Living Mulch System in an Intensive Organic Vegetable Cropping Operation to Enhance Weed, Nutrient, and Pest Management $5,000 Helen Atthowe Biodesign Farm

FW95-093 Influencing Elk and Livestock Riparian Use $4,750 Allen Carter

FW95-026 Carter-Fallon Forage Committee Range/Livestock Project $4,943 Randy Tunby Carter-Fallon Forage Committee

GRADUATE STUDENT GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tbody>
<tr>
<td>GW20-205</td>
<td>Measuring intra-field variability in pea protein to understand influencing factors in Montana cropping systems</td>
<td>$25,000</td>
<td>Dr.Clain Jones Montana State University Dr.Perry Miller Montana State University Samuel Koeshall Montana State University</td>
</tr>
</tbody>
</table>
GW20-204 Restoring Disturbed Rangelands With Site-Specific Seeding $25,000 Lisa Rew
Montana State University
Colter Mumford
Montana State University

GW19-199 Effects of Habitat Heterogeneity on Crop Yield and Biodiversity $24,972 Bruce Maxwell
MSU
Hannah Duff
1992

GW19-190 Nitrogen Fertilizer Management Based on Site-Specific Maximized Profit and Minimized Pollution $24,992 Dr.Stephanie Ewing
Montana State University
Bruce Maxwell
MSU
Paul Hegedus
Montana State University

GW19-197 Fostering resilient plant-soil interactions on working ranches in semi-arid steppe ecosystems of north-central and eastern Montana. $24,988 Dr.Craig Carr
Montana State University
Dr.Stephanie Ewing
Montana State University
Dr.Christine Gobrogge
Montana State University Environmental Analytical Laboratory
Seth Newton
Bear Gulch Ranch
Jay "Butch" Ortner
Ortner Ranch
Danny Pratt
Natural Resources Conservation Services
Tiffany Salveson
Natural Resources Conservation Service
Timothy Seipel
Joseph Capella
Montana State University

GW19-198 Precision Agriculture Applied to Organic Systems $22,500 Bruce Maxwell
MSU
Royden Loewen
Montana State University

GW18-179 Predicting overwinter nitrate-N changes at the subfield scale in leaching-susceptible, agricultural soils $25,000 Dr.Clain Jones
Montana State University
Dr.Patrick Carr
Montana State University
Simon Fordyce
Central Agricultural Research Center

GW18-151 Advancing Cover Crop Knowledge: Assessing the Role of Plant Diversity on Soil Change $25,000 Dr.Perry Miller
Montana State University
Kristen Dagati
Montana State University

GW18-050 Montana Hardy Fruit Nutraceutical Quality $17,765 Mac Burgess
Montana State University
Durc Setzer
Montana State University

GW17-040 Sustainability of dormant season grazing: Does protein supplementation impact beef cattle performance, soil organic matter, vegetation, and residual cover for wildlife? $24,970 Dr.Janice Bowman
Montana State University
Dr.Lance McNew
Montana State University
Samuel Wyyfels
Montana State University

GW16-053 Cover Crop Grazing: Optimal Seasonality for Soil and Livestock Benefit $25,000 Dr.Perry Miller
Montana State University
Robert Walker
MSU LRES

GW12-004 Multiple Forms of Uncertainty as a Barrier to the Adoption of Sustainable Farming Practices $24,830 Patrick Lawrence
Montana State University
GW10-032 Investigating the Legume Green Fallow Alternative on North-Central Montana No-Till Operations $24,250 Dr. Perry Miller Montana State University Justin O’Dea Washington State University


GW06-026 Effects of Weed Communities in Conventional and Organic Agricultural Systems. $7,536 Bruce Maxwell MSU Fabian Menalled Dept. of Land Resources and Environmental Sciences Fred Pollnac Montana State University

ON FARM RESEARCH/PARTNERSHIP GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tr>
<td>OW17-026</td>
<td>Montana Food Economy Initiative</td>
<td>$50,000</td>
<td>Lindsay Ganong AERO</td>
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<tr>
<td>OW17-021</td>
<td>Evaluating Nitrates and Forage Quality in Fall Regrowth of Annual Cereal Forages</td>
<td>$19,972</td>
<td>Dr. Tracy Mosley Montana State University Extension</td>
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<tr>
<td>OW17-009</td>
<td>Soil Moisture Network and Tools - MT and WY collaborative</td>
<td>$49,995</td>
<td>Lee Schmelzer Montana State University</td>
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<tr>
<td>OW15-026</td>
<td>Are Feedlot-based Performance Cattle Limiting Ecological Services for Rangeland Ecosystems in Northern Mixed-grass Prairies?</td>
<td>$49,961</td>
<td>Dr. Emily Meccage Montana State University</td>
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<tr>
<td>OW13-017</td>
<td>Reference strips and precision sensors for increased nitrogen use efficiency in wheat production</td>
<td>$49,907</td>
<td>Dr. Olga Walsh Montana State University</td>
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<td>OW13-144</td>
<td>Effects of Late-Season Water Lease on Forage Crops</td>
<td>$24,950</td>
<td>Jodi Pauley Montana State University</td>
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<tr>
<td>OW12-044</td>
<td>Best Management Practices for Livestock Protection Dogs</td>
<td>$49,998</td>
<td>Jeff Mosley Montana State University</td>
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<td>OW11-326</td>
<td>Developing Community Based Oilseed Industry in Montana</td>
<td>$49,830</td>
<td>Taylor Lyon Bio-Energy Center Dr. Nestor Soriano, Jr. Lead Research Scientist</td>
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<tr>
<td>FW04-313</td>
<td>Preserving Farms and Ranches</td>
<td>$5,000</td>
<td>Robert &quot;Rob&quot; Johnson Montana State University</td>
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</table>

Total funding from the USDA SARE program to Montana $8,094,938

For further information on projects, contact Western SARE at (435) 797-2257 or wsare@usu.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA’s National Institute of Food and Agriculture (NIFA).