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 $312 million to more than 7,507 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.

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, and search for project number SW10-050.

SARE in Montana

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

$8,094,938 in total funding

122 grant projects

(since 1988)

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

Total awards: **122 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: **$8,094,938**
- $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](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](western.sare.org/state-pages/montana) to learn more.

Patrick Mangan  
MSU Extension  
(406) 375-6611  
patrick.mangan@montana.edu

For detailed information on SARE projects, go to [www.SARE.org](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 in the northeastern region of the sagebrush steppe | $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 |
<table>
<thead>
<tr>
<th>Code</th>
<th>Project Description</th>
<th>Funding</th>
<th>Principal Investigators</th>
<th>Institution</th>
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<tr>
<td>SW14-014</td>
<td>Sustainable Cropping Systems for Dual-Purpose Biennial Canola</td>
<td>$256,397</td>
<td>Dr. Darrin Boss, Dr. Steve Fransen, PhD</td>
<td>Montana State University, Washington State University</td>
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<td>SW13-043</td>
<td>Evaluating Native Perennial Flower Strips for Enhancing Native Bees and Pollination Services on Farmlands</td>
<td>$170,951</td>
<td>Laura Burkle</td>
<td>Montana State University</td>
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<tr>
<td>SW13-056</td>
<td>Landscape Collaborative Grazing and Greater Sage Grouse Survival</td>
<td>$339,552</td>
<td>Dr. Bok Sowell</td>
<td>MSU- Animal &amp; Range Sciences</td>
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<td>SW12-108</td>
<td>Low Glycemic Potatoes, a value-added crop for Montana</td>
<td>$154,000</td>
<td>Dr. David Sands</td>
<td>Montana State University</td>
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<tr>
<td>SW11-086</td>
<td>Degree Day Modeling and Economic Considerations of Insects and Weeds in Sheep Grazed Alfalfa, Grain, and Range Production Systems</td>
<td>$206,700</td>
<td>Dr. Hayes Goosey</td>
<td>Montana State University</td>
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<tr>
<td>SW11-099</td>
<td>Using cover crop mixtures to improve soil health in low rainfall areas of the northern plains</td>
<td>$354,405</td>
<td>Dr. Perry Miller</td>
<td>Montana State University</td>
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<tr>
<td>SW10-050</td>
<td>Enhancing Cropping System Sustainability by Minimizing Ammonia-N Losses from Biological and Chemical Inputs</td>
<td>$190,009</td>
<td>Dr. Richard Engel</td>
<td>Montana State University</td>
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<tr>
<td>SW09-068</td>
<td>Integrating Biological Control with Targeted Sheep Grazing to Suppress Spotted Knapweed</td>
<td>$49,865</td>
<td>Rachel Frost, Jeff Mosley</td>
<td>Montana State University</td>
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<tr>
<td>SW09-061</td>
<td>Infrastructure Support for Small Livestock Processing Facilities</td>
<td>$46,796</td>
<td>Dr. Jane Boles</td>
<td>Montana State University</td>
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<tr>
<td>SW07-013</td>
<td>Evaluation of Alfalfa Weevil (Coleoptera Curculionidae) Densities, Weed Abundance, and Regrowth Characteristics of Alfalfa Grazed by Sheep.</td>
<td>$96,817</td>
<td>Dr. Hayes Goosey</td>
<td>Montana State University</td>
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<tr>
<td>SW07-025</td>
<td>Grower-based selection of varieties and systems for wheat stem sawfly control</td>
<td>$125,000</td>
<td>Dr. Luther Talbert</td>
<td>Montana State University</td>
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<tr>
<td>SW07-028</td>
<td>Is Sulfur Cinquefoil a Candidate for Control with Sheep and Goats?</td>
<td>$54,250</td>
<td>Jeff Mosley, Rachel Frost</td>
<td>Montana State University</td>
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<td>SW07-063</td>
<td>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 preicide and mechanical methods of weed and insect control</td>
<td>$10,000</td>
<td>Dr. Hayes Goosey</td>
<td>Montana State University</td>
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<tr>
<td>SW06-075</td>
<td>Does Timing of Defoliation Affect Spotted Knapweed Seed Viability and Germination?</td>
<td>$62,600</td>
<td>Tracy Brewer, Dr. Tracy Mosley</td>
<td>Park County Extension - Montana State University, Montana State University Extension</td>
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<tr>
<td>SW06-006</td>
<td>Survey and Economic Analysis of Montana Farms Utilizing Integrated Livestock-Cereal Grain (Ley Farming) Systems</td>
<td>$91,500</td>
<td>Dr. Chengci Chen</td>
<td>Montana State University</td>
</tr>
</tbody>
</table>


**SW05-038**  Developing Distance Learning Based on Perceptions and Knowledge of Producers and Agricultural Professionals

Fabian Menalled
Dept. of Land Resources and Environmental Sciences

**SW04-007**  Methane Recovery from Small Dairy Operations

Ron Carlstrom
MSU Extension- Gallatin County

**SW03-056**  Ecologically Based Integrated Weed Management to Restore Plant Diversity

James Jacobs
Montana State University

**SW03-063**  Factors Affecting Alfalfa Stand Longevity in Montana

Dennis Cash
Montana State University

**SW02-005**  Increasing Crop Water Use Efficiency in Advanced No-Till Systems

Dr. Perry Miller
Montana State University

**SW01-048**  Using Crop Diversity in No-till and Organic Systems to Reduce Inputs and Increase Profits and Sustainability in the Northern Plains

Bruce Maxwell
MSU

**SW00-015**  An Alternative to Traditional Wheat Stubble Management Using Sheep to Control Pests and Improve Soil Nutrient Cycling

Patrick Hatfield
Department of Animal and Range Sciences
Sue Blodgett
Montana State University, Dept. Entomology
Dr. Hayes Goosey
Montana State University
Duane Griffith
Montana State University, Ag Econ and Ext Dept

**SW98-064**  Selecting Cattle to Prevent Grazing Distribution Problems

Derek Bailey
Montana State University

**SW97-056**  Comparison of Pest Management Interactions in Spring Wheat-Cover Crop and Spring Wheat-Fallow Cropping Systems

Andrew Lenssen
Montana State University

**SW96-019**  Sustaining Agriculture and Community: Moving the Farm Improvement Club Program Beyond the Farm Gate

Jonda Crosby
Alternative Energy Resources Organization

**LW92-004**  Sustainable Farming Quarterly

Nancy Matheson
Alternative Energy Resources Organization (AERO)

**LWD92-004**  The Sustainable Farming Quarterly (SFQ) A Regional Newsletter

Al Kurki
Alternative Energy Resources Organization (AERO)

**LWD91-003**  Regional Farm and Research Center Matching System-FARMS

J. Jacobsen
Montana State University

**LW91-023**  Farm Improvement Club Network for Sustainable Agriculture

Nancy Matheson
Alternative Energy Resources Organization (AERO)

**LW91-024**  Specifying and Analyzing Whole-Ranch Systems for Sustainable Range Livestock Production in Environmentally Sensitive Areas

Jack Riesselman
Montana State University

**LW91-025**  Practical Education in Sustainable Production Systems

Wade Crouch
Montana State University
<table>
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<tr>
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<tbody>
<tr>
<td>RGR20-009</td>
<td>Montana Food Economy Initiative</td>
<td>$74,759</td>
<td>Lindsay Ganong, AERO</td>
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<tr>
<td>WPDP19-15</td>
<td>Sustainable Beef Cattle Production: Ranch to Ribeye</td>
<td>$57,310</td>
<td>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</td>
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<tr>
<td>EW18-011</td>
<td>Pheromones as Tools for Monitoring the Insect Pests in the Northern Plains - Instructive Tools for Agricultural Professionals</td>
<td>$73,510</td>
<td>Dr. Michael Ivie, Montana State University-Bozeman</td>
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<tr>
<td>EW18-027</td>
<td>Building Internal Capacity for the Blackfeet Tribe Agricultural Resource Management Plan (ARMP)</td>
<td>$52,155</td>
<td>Loren Bird Rattler, Blackfeet Tribe</td>
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<tr>
<td>EW17-011</td>
<td>Integrated Parasite Management: Train the Trainer</td>
<td>$74,189</td>
<td>David Scott, National Center for Appropriate Technology</td>
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<tr>
<td>EW16-029</td>
<td>Best Management Practices (BMPs) for Mitigating Herbicide Resistance in the Northern Great Plains - Educational Tools for Agricultural Professionals</td>
<td>$68,871</td>
<td>Dr. Prashant Jha, Montana State University, Southern Agricultural Research Center, Huntley, MT</td>
</tr>
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</table>
EW16-036 Catalyzing Increased Agricultural Sales through a Common Understanding of Montana’s New Food Modernization Law $22,332 Jennifer Hill-Hart AERO

EW15-009 Conservation and Augmentative Biological Control in the Northern Plains – Providing Tools for Agriculture Professionals $68,182 Dr. Michael Ivie Montana State University-Bozeman

EW13-014 Enhancing the Exploring Energy Efficiency & Alternatives (E3A) Curriculum $42,277 Milton Geiger University of Wyoming Extension Dr. Glen Whipple University of Wyoming Extension

EW12-006 Montana State University Extension Range Management Institute $60,000 Dr. Tracy Mosley Montana State University Extension

EW12-004 Tour of sustainable Small Grain Production in Eastern Washington $7,350 Dan Picard MSU Extension-Pondera County Jesse Fulbright Montana State University

EW11-012 Wildlife Damage Control for Traditional and Organic Farmers $96,053 Dr. Jim Knight Extension Wildlife Specialist

EW01-007 Training Tour 2002-03-04 $30,024 Jonda Crosby Alternative Energy Resources Organization

EW01-016 Growing Our Own: Communities That Sustain Entrepreneurs $52,483 Richard Williams Montana State University Extension Service

EW99-008 Developing a Sustainable and Organic Master Gardener Horticulture Production Manual $22,483 Helen Atthowe Missoula County Extension Service

EW99-015 Harvesting the Wealth: of AERO’s Farm and Ranch Improvement Clubs $60,000 Jonda Crosby Alternative Energy Resources Organization

EW97-007 Sustainable Agriculture Youth Education: Professional Dev. for Youth Program Leaders and Educators $100,000 Jonda Crosby Alternative Energy Resources Organization

EW95-002 Sustainable Noxious Weed Management on Northwestern Rangelands $43,800 Roger Sheley Montana State University

EW95-003 Agency Personnel Training in Riparian Monitoring and Management of Wildlife and Livestock in the Intermountain West $98,000 Dr. Jim Knight Extension Wildlife Specialist

EW95-012 Sustainable Agriculture Training Project A Model of Collaborative Learning $31,450 Nancy Matheson Alternative Energy Resources Organization (AERO)

EW94-006 Sustainable Agriculture Training Project: A Model of Collaborative Learning $91,000 Nancy Matheson Alternative Energy Resources Organization (AERO)

FARMER/RANCHER GRANTS

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<th>Project #</th>
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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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<tr>
<td>Project Code</td>
<td>Project Title</td>
<td>Funding</td>
<td>Investigator(s)</td>
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</table>
| FW15-039    | Making the Most of Fine Fleece: Environmental, Economic, and Social Costs and Benefits of Alternative Strategies for Marketing Sheep Wool | $10,646 | Linda Poole  
Prairie Shepherd                                                                         |
| FW11-024    | Organic Control of Perennial Weeds with Vinegar and Biologicals                                   | $20,790 | Jess Alger  
Organic control of Perennial Weeds                                                                        |
| FW10-042    | Marketing J Bar L Ranch Grassfed Beef to Members of Conservation Organizations                    | $13,000 | Bryan Ulring  
J Bar L Ranches, LLC                                                                                     |
| FW09-305    | Composting Recommendations and Marketing Evaluation for Livestock Operations in Cold Semi-Arid Environments | $49,315 | Thomas Bass  
Montana State University                                                                              |
| FW08-016    | Can Producers in Five Montana Counties Successfully Use No-Till Methods for Renovation of Irrigated and Dryland Pastures? | $29,999 | Ron Carlstrom  
MSU Extension- Gallatin County  
George Reich                                                   |
| FW08-023    | Pasture-Raised Heritage Turkeys in a Dryland Farming System                                       | $6,413  | Jacob Cowgill                                                                                       |
| FW08-034    | High-Nutrition Drought-Tolerant Corn                                                              | $30,000 | Dave Christensen                                                                                   |
| FW08-317    | Sustainable Food and Bioenergy Systems: Student Internships Development Plan                       | $29,983 | Dr. William Dyer  
Montana State University                                                                            |
| FW06-025    | Agroecosystem Approach to Managing Imported Cabbage Worm (Peris rapae)                            | $6,356  | Helen Atthowe  
Biodesign Farm                                                                                     |
| FW05-012    | Forage Winter Wheat Production for Grazing or Hay Production in Eight Montana Counties            | $19,795 | George Reich                                                                                       |
| FW05-301    | Protecting High Quality Rangelands in Garfield County from Invasive Weed Spread                   | $20,000 | Eric Miller  
Montana State University                                                                            |
| FW05-305    | Demonstration of Leafy Spurge Management Using Sheep Grazing in a Leafy Spurge Barrier Zone       | $9,960  | Sharla Sackman  
Montana State University Extension Service                                                              |
| FW04-018    | Forage Winter Wheat Production for Jay or Grain in Gallatin County, Montana                       | $5,370  | George Reich                                                                                       |
| FW02-036    | Sheep and Cattle Grazing Complementarity Project                                                  | $5,055  | Randall Tunby                                                                                      |
| FW01-085    | Biological and Mechanical Control of Perennial Weeds in North-Central Montana                     | $6,387  | Robert Quinn  
Montana State University                                                                            |
| FW01-032    | Biological Weed Control: Education and Implementation                                             | $7,500  | Noah Poritz                                                                                       |
| FW00-017    | Establishing a Sustainable Program for Recycling and Propagation of Quality Flower Bulbs in a Wholesale Flower Production Operation | $2,197  | Laura Smith                                                                                       |
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

Better Board of Trade.Com

$8,054

David Oien

TEAM-Team Effort in Agricultural Marketing for the McAlpine Ranch

$9,705

Clay McAlpine

Montana Arnica Web Page

$870

Rod Daniel

No-Till Wheat into Medic vs. Conventional Wheat

$4,578

Jess Alger

Organic control of Perennial Weeds

Range Monitoring in the Badlands Grazing District

$10,000

Jack McCuin

Cull Potato Composting

$7,500

Steve McCullough

Annual Forages for Dryland Rotations

$1,540

Vern Pluhar

Green Manure/Covercrop Combination Experiment

$1,923

Rod Daniel

Legume Grazing in Rotation with Small Grains

$4,000

Jess Alger

Organic control of Perennial Weeds

Evaluation of Grass Species for Improved Pasture Management

$4,800

Robert Lee

Vegetative Changes through Alternative Water Sources

$2,500

Dale Veseth

Carter-Fallon Forage Committee Range/Livestock Project

$4,943

Randy Tunby

Carter-Fallon Forage Committee

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

Influencing Elk and Livestock Riparian Use

$4,750

Allen Carter

<table>
<thead>
<tr>
<th>Project #</th>
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<th>SARE Support</th>
<th>Project Leaders</th>
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</thead>
</table>
| GW20-204  | Restoring Disturbed Rangelands With Site-Specific Seeding | $25,000 | Lisa Rew
|           |               |              | Montana State University |
|           |               |              | Colter Mumford |
|           |               |              | Montana State University |
| GW20-205 | Measuring intra-field variability in pea protein to understand influencing factors in Montana cropping systems | $25,000 | Dr. Clain Jones  
Montana State University  
Dr. Perry Miller  
Montana State University  
Samuel Koeshall  
Montana State University |
| GW19-198 | Precision Agriculture Applied to Organic Systems | $22,500 | Bruce Maxwell  
MSU  
Royden Loewen  
Montana State University |
| GW19-199 | Effects of Habitat Heterogeneity on Crop Yield and Biodiversity | $24,972 | Bruce Maxwell  
MSU  
Hannah Duff  
1992 |
| GW19-200 | 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  
Department of Land Resources and Environmental Sciences, Montana State University  
Joseph Capella  
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  
Simone Seipel  
Central Agricultural Research Center |
| 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 Wyffels  
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 |
Multiple Forms of Uncertainty as a Barrier to the Adoption of Sustainable Farming Practices

Investigating the Legume Green Fallow Alternative on North-Central Montana No-Till Operations


Effects of Weed Communities in Conventional and Organic Agricultural Systems.

ON FARM RESEARCH/PARTNERSHIP GRANTS

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<tr>
<th>Project #</th>
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<tbody>
<tr>
<td>OW17-009</td>
<td>Soil Moisture Network and Tools - MT and WY collaborative</td>
<td>$49,995</td>
<td>Lee Schmelzer&lt;br&gt;Montana State University</td>
</tr>
<tr>
<td>OW17-026</td>
<td>Montana Food Economy Initiative</td>
<td>$50,000</td>
<td>Lindsay Ganong&lt;br&gt;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&lt;br&gt;Montana State University Extension</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&lt;br&gt;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&lt;br&gt;Montana State University</td>
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<tr>
<td>OW13-144</td>
<td>Effects of Late-Season Water Lease on Forage Crops</td>
<td>$24,950</td>
<td>Jodi Pauley&lt;br&gt;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&lt;br&gt;Montana State University</td>
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<tr>
<td>OW11-326</td>
<td>Developing Community Based Oilseed Industry in Montana</td>
<td>$49,830</td>
<td>Taylor Lyon&lt;br&gt;Bio-Energy Center&lt;br&gt;Dr.Nestor Soriano, Jr.&lt;br&gt;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&lt;br&gt;Montana State University</td>
</tr>
</tbody>
</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).