

## 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 \$404 million to more than 8,798 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](http://www.sare.org)

# SARE: Advancing the Frontier of Sustainable Agriculture in... South Dakota

Project Highlight: *High-Efficiency, Year-Round, Tropical Greenhouse*

In South Dakota, soybeans, corn, wheat, sunflowers, and alfalfa come to mind when contemplating the state's number one industry - agriculture. In Aurora, South Dakota, Wayward Springs Acres boasts 30 acres of pasture, 20 acres of grass hay ground, sheep, cattle, and goats on their farm. But some of the crops at Wayward Springs have veered in a different, more exotic, direction.

As a child, mechanical engineer Shannon Mutschelknaus developed an interest in horticulture and eventually began saving seeds and growing tropical and sub-tropical trees.

"I discovered the demand for exotic tropical fruit trees was robust because they are regularly ravaged by seasonal hurricanes," said Mutschelknaus. "Examples of the many plants I've successfully propagated include soursop, mamey, *Garcinia humilus*, *Garcinia madruno*, cherimoya, *Monstera deliciosa*, and passion fruit."

Mutschelknaus wanted to use his engineering, research, and horticultural expertise to build a specialized greenhouse to expand his exotic plant business. With support from a SARE grant, he built a greenhouse with an insulated rear wall, passive solar heat, and an in-ground "climate battery." Climate battery greenhouses like Mutschelknaus's use the earth below the greenhouse to manage excess heat captured during the day. Tubing is buried beneath the greenhouse, and a fan circulates air through the tubing. Warm, humid daytime air circulates underground, where it cools down before re-entering the greenhouse. And at night, fans push the cool air underground to absorb the earth's heat and bring warmth back into the structure.

Mutschelknaus now grows leafy greens and tomatoes in his greenhouse along with novel fruits like lowquats, soursops, and cherimoya. His plans are available to the public with easy-to-read graphs, illustrations, videos, and clear guidelines.

View Wayward Spring's greenhouse plans and instructional videos at [sare.org/projects](http://sare.org/projects); search for project number [FNC19-1185](https://www.sare.org/projects/1185).

## SARE in South Dakota

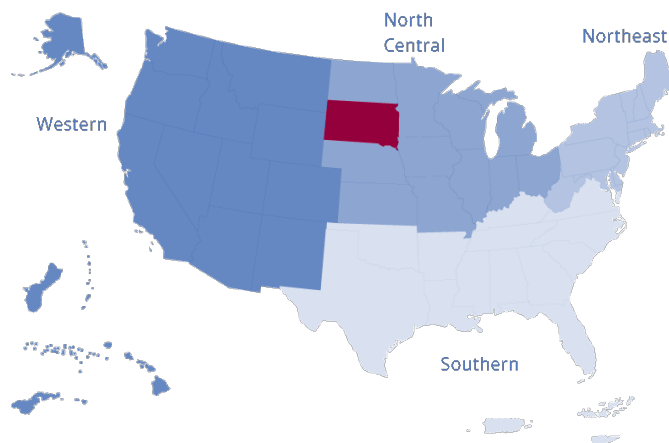
[northcentral.sare.org/state-profiles/south-dakota/](http://northcentral.sare.org/state-profiles/south-dakota/)

**\$1,522,914**  
in total funding

**24 grant project**

(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)



# SARE in South Dakota

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## Grants awarded 2019-2024

Total awards: **24 grants**

- 7 Farmer/Rancher
- 6 Research and Education
- 1 Professional Development Program
- 4 On Farm Research/Partnership
- 2 Graduate Student
- 4 Youth Educator

Total funding: **\$1,522,914**

|             |                                  |
|-------------|----------------------------------|
| \$76,481    | Farmer/Rancher                   |
| \$1,185,178 | Research and Education           |
| \$89,805    | Professional Development Program |
| \$121,495   | On Farm Research/Partnership     |
| \$29,958    | Graduate Student                 |
| \$19,997    | Youth Educator                   |

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:

**2,423 farmers participated in a SARE-funded project**

**441 farmers reported a change in knowledge, awareness, skills or attitude**

**105 farmers changed a practice**



Learn about local impacts at:

[northcentral.sare.org/state-programs/south-dakota/](http://northcentral.sare.org/state-programs/south-dakota/)

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## Contact Your SARE State Coordinator

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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-profiles/south-dakota/](http://northcentral.sare.org/state-profiles/south-dakota/) to learn more.

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For detailed information on SARE projects, go to  
**[www.SARE.org](http://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 SOUTH DAKOTA

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

South Dakota has been awarded \$4,842,036 grants to support 126 projects, including but not limited to, 27 research and/or education projects, 8 professional development projects and 54 producer-led projects. South Dakota has also received additional SARE support through multi-state projects.

## RESEARCH AND EDUCATION GRANTS

| Project # | Project Title   | SARE Support | Project Leaders  |
|-----------|---|--------------|--|
| LNC23-479 | Ethnobotany Education Project   | \$66,442     | Marla Bull Bear<br>Lakota Youth Development  |
| LNC23-485 | Assessing and Improving Lakota Land-User Social-Ecological Interactions and Impacts on Sustainability   | \$249,768    | Dr.Francisco Munoz-Arriola<br>University of Nebraska-Lincoln,<br>School of Natural Resources   |
| LNC23-493 | Evaluating sustainability of dairy production systems in South Dakota: Relationship between milk carbon footprint and farm profitability            | \$249,824    | Dr.Maristela Rovai, DVM<br>South Dakota State University -<br>DEPT. DAIRY & FOOD SCIENCE<br>Dr.Md Elias Uddin<br>University of Connecticut |
| LNC22-460 | Comparing soil tarping and solarization for early season weed control in vegetable crop systems - a research and demonstration study                | \$249,935    | Dr.Rhoda Burrows<br>South Dakota State University  |
| LNC21-445 | Improving watershed health, wildlife habitat, and ranch profitability: education and demonstration of low-cost, low-tech riparian restoration tools | \$246,721    | Dr.Krista Ehlert<br>South Dakota State University  |
| LNC19-419 | Investigating Rangeland Systems and Practices: Enhancing Sustainable Agriculture Curriculum in South Dakota   | \$122,488    | Dr.Krista Ehlert<br>South Dakota State University  |
| LNC18-405 | Using native rhizobia to create a drought-resilient field pea production system   | \$199,813    | Christopher Graham<br>South Dakota State University  |
| LNC18-410 | Dynamics of Dung Invertebrate Communities, and Their Contributions to Profitability in RegenerativeRrangelands                                      | \$200,000    | Dr.Jonathan Lundgren, PhD<br>Ecdysis Foundation  |

|           |   |           |   |
|-----------|---|-----------|---|
| LNC15-371 | Managing Grassland Vegetation with Winter-Patch Grazing: Potential Benefits to Livestock and Wildlife             | \$199,294 | Dr.Patricia Johnson<br>South Dakota State University                                  |
| LNC11-338 | Mob Grazing Increases Efficiency and Profitability of Livestock Production  | \$199,988 | Dr.Alexander Smart<br>South Dakota State University                                   |
| LNC10-322 | Development and Demonstration of a New Method of Physical Weed Control  | \$174,603 | Dr.Frank Forcella<br>USDA-ARS   |
| LNC10-326 | Small Acreage Success: Connecting Natural Resource Professionals with a Non-Traditional Audience                  | \$95,319  | Mindy Hubert<br>South Dakota State University<br>Dr.Roger Gates<br>SDSU Extension     |
| LNC09-311 | South Dakota Beginning Farmer Training and Linking Project  | \$25,000  | Frank James<br>Dakota Rural Action<br>Tonya Haigh<br>Dakota Rural Action              |
| LNC07-277 | Patch Burn-Grazing to Promote Environmental Sustainability  | \$144,685 | Dr.Alexander Smart<br>South Dakota State University                                   |
| LNC07-278 | Benefits of forage-based heifer development and post-AI supplementation.  | \$149,026 | Dr.George Perry<br>South Dakota State University                                      |
| LNC07-280 | Post-Prairie Dog Rangeland Recovery   | \$147,470 | Dr.Patricia Johnson<br>South Dakota State University                                  |
| LNC05-260 | Effectiveness of thiamin in reducing the impacts of high-sulfate water  | \$144,805 | Dr.Patricia Johnson<br>South Dakota State University                                  |
| LNC03-224 | From Food Stamps to Home Production   | \$135,000 | Ann Krush<br>Center for Permaculture as a Native Science                              |
| LNC01-194 | Profit by Planning: Helping Fresh Market Vegetable Growers Meet Financial Goals and Improve their Quality of Life | \$71,914  | John Hendrickson<br>CIAS, UW-Madison  |
| LNC00-163 | Rosebud Producers Develop WIC Markets   | \$94,000  | Ann Krush<br>Center for Permaculture as a Native Science                              |
| LNC96-108 | Restoration of Economic and Ecological Sustainability in Western Rangeland: A Handbook                            | \$62,800  | W. Carter Johnson<br>S. Dakota St. Univ., Dept of Hort., Forestry, Landscape, & Parks |

|             |   |          |   |
|-------------|---|----------|---|
| LNC95-079   | The Effect of Spring Seeded Annual Medic, Genus Medicago, on Weed Management and Soil Quality in Corn Production          | \$73,000 | Sharon Clay<br>Dept of Agronomy, Horticulture, and Plant Science, South Dakota State University |
| LNC93-055   | Economic and Environmental Implications of 1990 Farm Bill Sustainability Provisions in Water Quality Sensitive Areas      | \$82,650 | Thomas Dobbs<br>South Dakota State University   |
| LNC92-009.3 | Agronomic and Whole-Farm Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains | \$47,150 | James Smolik<br>South Dakota State University   |
| LNC90-009.2 | Agronomic and Whole-Farm Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains | \$67,950 | James Smolik<br>South Dakota State University   |
| LNC89-009.1 | Agronomic and Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains            | \$60,000 | James Smolik<br>South Dakota State University   |
| LNC88-009   | Agronomic and Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains            | \$66,700 | James Smolik<br>South Dakota State University   |

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

| Project # | Project Title   | SARE Support | Project Leaders                                |
|-----------|---|--------------|--|
| ENC22-216 | Strengthening High Tunnel Training and Support for the Next Generation of Technical Service Providers and Producers     | \$89,805     | Kristine Lang<br>South Dakota State University |
| ENC15-144 | Learning About the Benefits of Integrated Crop-Livestock Systems on Soil Health   | \$73,861     | Julie Walker<br>South Dakota State University  |
| ENC07-095 | Educational Curricula and Professional Development Training for Energy Efficient Production Practices.                  | \$49,947     | Dr.David Clay<br>South Dakota State University |
| ENC04-077 | Building Knowledge of Sustainable Rangeland Management Using Information Technology - Northern Great Plains Partnership | \$16,719     | Dr.Roger Gates<br>SDSU Extension               |

|             |   |          |  |
|-------------|---|----------|--|
| ENC03-074   | Advanced Training in Sustainable Production Systems in the Northern Great Plains          | \$63,556 | Dr.Roger Gates<br>SDSU Extension                         |
| ENC00-052   | Training in Sustainable Livestock Production Systems on Rangelands of the Western Dakotas | \$80,642 | Hubert Patterson<br>South Dakota State University        |
| ENC98-037.1 | Outreach Education for Permaculture as Native Science                                     | \$36,450 | Ann Krush<br>Center for Permaculture as a Native Science |
| ENC97-022   | Outreach Education for Permaculture as Native Science                                     | \$47,960 | Ann Krush<br>Center for Permaculture as a Native Science |

#### FARMER/RANCHER GRANTS

| Project #  | Project Title   | SARE Support | Project Leaders                                   |
|------------|---|--------------|---|
| FNC22-1340 | Create artisan-in-residence program to further education in value-added agricultural products specific to our remote, ranching community                                  | \$3,905      | Eliza (Blue) Loughlin<br>Plainsong Farm and Fiber |
| FNC20-1221 | Exploring the use of compost & biochar as both soil amendments and as heat sources to extend the growing season inside high-tunnels on the Pine Ridge                     | \$27,000     | Patricia Hammond<br>Rebel Earth Farms             |
| FNC20-1256 | Growing Camelina (Camelina sativa) in Western South Dakota  | \$9,641      | Dr.Jennifer Walker<br>Walker Farm                 |
| FNC19-1185 | High Efficiency Year-Round Tropical Greenhouse  | \$9,000      | Shannon Mutschelknaus<br>Wayward Springs Acres    |
| FNC19-1187 | The evaluation of Integrated Weed Management practices to control chicory infestation in the pastures and hay ground of conventional and organic agricultural operations. | \$8,935      | Doug Pavel<br>Butte Vista Farm                    |
| FNC19-1197 | Wiconi Waste Resistance Farm a Lakota regenerative agroforestry permaculture demonstration farm   | \$9,000      | Michelle Tyon<br>Wiconi Waste Farm                |

|                            |  |          |  |
|----------------------------|--|----------|--|
| <a href="#">FNC19-1203</a> | The Evaluation of Integrated Weed Management Practices to Control Chicory Infestation in the Pastures and Hay Ground of Conventional and Organic Agricultural Operations | \$9,000  | Sue Hillard<br>Three Heart Farm  |
| <a href="#">FNC18-1124</a> | Rebel Earth Farms' Value-Added, Direct Marketing Lakota Herbal Tea High-tunnel Production  | \$7,500  | Patricia Hammond<br>Rebel Earth Farms  |
| <a href="#">FNC18-1131</a> | Edible Net Wrap: A Possible Solution to Livestock Longevity  | \$7,500  | Amanda Konechne<br>Chris and Amanda Konechne   |
| <a href="#">FNC17-1079</a> | Research of Methods to Improve the Processing of Hops ( <i>Humulus lupulus</i> L.)   | \$7,500  | Yvonne Hines<br>Hines Hops Farm  |
| <a href="#">FNC16-1031</a> | Controlling Cedar Tree Invasion by Rotational Grazing Goats through Pasture  | \$6,793  | Adam Carlson<br>Hanson Homestead   |
| <a href="#">FNC16-1036</a> | Examination of the Productivity of Four Hops Varieties ( <i>Humulus lupulus</i> L.) in Two Soil Types in Southwest South Dakota.   | \$7,500  | Yvonne Hines<br>Hines Hops Farm  |
| <a href="#">FNC14-942</a>  | Making Goats Milk Soap Business Sustainable by Implementing Standard Manufacturing and Testing Protocols   | \$5,635  | Penny Adler<br>444Farm   |
| <a href="#">FNC14-947</a>  | Examining Water and Nutrient Dynamics of a Cover Crop in an Upper Great Plains Vineyard  | \$7,467  | Chris Graham<br>Piedmont Valley Vineyard and Farm  |
| <a href="#">FNC14-977</a>  | Reduced Pesticide Fly Control in Feedlots and Native Rangeland to Conserve Dung Beetles and Benefit Beef and Sheep Production  | \$21,287 | Linda Simmons<br>Whetstone Grazing, LLC<br>Peter Bauman<br>South Dakota State University |
| <a href="#">FNC12-846</a>  | The Producer-Initiated Development of a Goat Meat Market in the Black Hills Region of South Dakota   | \$14,999 | Tom Barnes<br>Pleasant Valley Farm   |
| <a href="#">FNC12-862</a>  | Growing, Processing and Selling Organic Grape Vinegar and Verjus   | \$7,391  | Steven Hauff<br>Three Heart Farm   |
| <a href="#">FNC12-892</a>  | A Hoop House in western South Dakota   | \$5,290  | Cathy Timmons<br>Timmons Ranch   |



|           |  |          |   |
|-----------|--|----------|---|
| FNC10-815 | The economic value of multi-species grazing of cattle and goats utilizing goats for brush and weed control | \$18,000 | Jim Deboer<br>Kelly Frensko<br>Penny Adler<br>444Farm |
| FNC09-764 | Grazing Lambs to Manage Weeds and Grass in a Cold Climate Vineyard   | \$2,291  | Karlys WELLS  |
| FNC08-699 | Field Harvest of Grassfed Bison  | \$17,802 | Dan O'Brien   |
| FNC08-746 | Winter Greenhouse  | \$1,922  | Bill Powers<br>Six Mile Creek Farm                    |
| FNC07-666 | Effects of Eastern South Dakota Soils and Climate on Sustainable Production of Cold Hardy Grape Varieties  | \$5,990  | Dave Greenlee   |
| FNC07-688 | Standing Grain as Winter Grazing for Cattle  | \$930    | Jennifer Walker                                       |
| FNC06-597 | Monitoring Rangeland Health as a Means to Sustain the Rural Family Enterprise                              | \$9,600  | Dan Anderson  |
| FNC06-615 | Utilizing Late Season Cover Crops in a No-Till System  | \$5,937  | Dan Forgey  |
| FNC06-635 | From Field to Store-Front - Designing On-Line Commerce for Wunder Flax                                     | \$5,200  | John Wunder   |
| FNC05-566 | Strengthening Grazing Success Through Genetics with Flax in an Organic Environment                         | \$5,995  | Angela Jackson-Pridie                                 |
| FNC05-575 | Sustainable Energy for Sustainable Production  | \$17,632 | Shawn Burke   |
| FNC04-542 | LaCreek Growing Solutions  | \$15,066 | Gail Kocer  |
| FNC04-543 | South Dakota Grazing/Pasture Management Research and Tour  | \$3,162  | Phil Raml   |
| FNC03-450 | Growing Native Fruits of the North Central Region  | \$6,000  | Kim Graber  |



|           |   |          |  |
|-----------|---|----------|--|
| FNC03-471 | South Dakota Grasslands Coalition Bus Tour to Grassland Grazing Demonstration Sites | \$5,000  | Dan Rasmussen<br>South Dakota Grasslands Coalition |
| FNC03-482 | Cider Hill Farm Cheese Plant  | \$5,997  | Joan Williams<br>Cider Hill Farm                   |
| FNC02-412 | Low Cost Precision Supplements to Add Profit to Cow-Calf Operations                 | \$5,153  | Jim Faulstich<br>Day Break Ranch                   |
| FNC02-437 | Development of Self-Sustaining Farmer's Market in Clay County, South Dakota         | \$4,032  | Grace Freeman                                      |
| FNC01-348 | Management and Control of Candian Thistle in Limited Access and Field Locations     | \$3,040  | Jordan Dawn<br>Enormous Brontosaurus Organic Farm  |
| FNC01-351 | Developing Added Value, Convenience Products From Free-Range Pastured Chickens      | \$14,513 | Tom Neuberger                                      |
| FNC01-354 | The Value of Value Added Products from Farm to Farm Market                          | \$4,858  | Gail Dawn  |
| FNC00-327 | Kiyaksa Timber Salvage and Restoration Project                                      | \$2,546  | Marcell Bull Bear                                  |
| FNC00-331 | Weed Control  | \$5,000  | Duane Lammers                                      |
| FNC99-008 | Interns for Garden Markets  | \$8,000  | Ann Krush  |
| FNC99-009 | Horse Spirit Youth Ranch  | \$14,700 | Victor Young                                       |
| FNC99-248 | Improve Grazing Profits by Marketing Cedar  | \$5,000  | Leroy Smith  |
| FNC98-004 | Interns for Rosebud WIC Gardens   | \$8,000  | Ann Krush  |
| FNC98-201 | Wolf's Native Garden Project  | \$4,160  | Charlie Smoke                                      |

|           |  |         |                        |
|-----------|--|---------|------------------------|
| FNC98-216 | The Expansion of the South Dakota Goosemobile Project to include Beef, Pork and Lamb | \$9,025 | Tom Neuberger          |
| FNC98-232 | Swath-grazing: A Potential Alternative to Hay Feeding for Wintering Beef Cows        | \$2,955 | Mark Sip               |
| FNC97-001 | Reestablishing Native Bison on Native Lands  | \$4,923 | Rick McLaughlin<br>n/a |
| FNC97-002 | Gardening and Gathering on the Rosebud Reservation                                   | \$8,000 | Ann Krush              |
| FNC97-185 | Rotational Grazing in South Dakota - Dairy Cattle                                    | \$3,448 | Willard Maas           |
| FNC96-144 | Finishing Beef Calves on Legume Pasture  | \$2,504 | raymond berry          |
| FNC95-107 | Alternative Strategies for Building Soil and Soil Erosion Control                    | \$5,000 | Vincent Meyer          |
| FNC94-070 | Riparian/Range Restoration   | \$4,923 | Jeff Mortenson         |

#### GRADUATE STUDENT GRANTS

| Project # | Project Title   | SARE Support | Project Leaders   |
|-----------|---|--------------|---|
| GNC20-313 | Measuring the impacts of returning to tillage on soil health parameters after long-term no-till soil management: An educational opportunity.                | \$14,976     | Dr.David Clay<br>South Dakota State University<br>Shaina Westhoff<br>South Dakota State University          |
| GNC19-286 | Field evaluation of traffic-induced compaction and its potential impact on soil physical characteristics and crop yield                                     | \$14,982     | Dr.Sandeep Kumar<br>South Dakota State University<br>Jasdeep Singh<br>South Dakota State University         |
| GNC18-254 | Predation, Herbivory, and Farmer Profitability and Sustainability in Response to Inter Seeded Covercrops in Standing Corn for Agroecosystem Diversification | \$11,906     | Jonathan Lundgren<br>South Dakota State University<br>Michael Bredeson<br>South Dakota State University     |
| GNC16-227 | Interactive Effects of Cover Crops, Soil Health Practices, and Insect Community Dynamics on Corn Production   | \$9,998      | Jonathan Lundgren<br>South Dakota State University<br>Claire LaCanne, M.S.<br>South Dakota State University |

|           |  |          |   |
|-----------|--|----------|---|
| GNC15-200 | Effect of Cover Crops on Beef Animal Performance and Soil Health   | \$9,999  | Dr.Derek Brake<br>South Dakota State University<br>Brooke Brunsvig<br>South Dakota State University                               |
| GNC15-207 | Contributions of Dung Arthropods to Sustainable Pest Management in Rangeland Systems of the Northern Great Plains  | \$9,994  | Jonathan Lundgren<br>South Dakota State University<br>Jacob Pecenka<br>South Dakota State University                              |
| GNC14-185 | Developing Guidelines for Sustainable Livestock Grazing in South Dakota Ponderosa Pine Forests: Balancing Economically Important Ecosystem Goods with Ecological Integrity | \$9,978  | Dr.Roger Gates<br>SDSU Extension<br>Kurt Chowanski<br>South Dakota State University West<br>River Ag Center                       |
| GNC12-148 | A Process-Based Nutrient Model for the Bedpack Manure of Confined Beef Systems   | \$9,860  | Dr.Erin Cortus<br>South Dakota State University<br>Ferouz Ayadi<br>South Dakota State University                                  |
| GNC10-118 | Using Forage Quality Testing to Predict Nitrogen Replacement Value of Cover Crops  | \$9,967  | Peter Sexton<br>Greg DeRynck<br>South Dakota State University   |
| GNC10-124 | Interseeding Yellow-flowered Alfalfa into Crested Wheatgrass Stands for Multiple Uses and Benefits   | \$9,060  | Dr.Roger Gates<br>SDSU Extension<br>Lan Xu<br>South Dakota State University<br>Christopher Misar<br>South Dakota State University |
| GNC10-130 | Prairie Restoration: Effects of Burning, Herbicide, and Nitrogen Manipulation to Reduce Invasive Cool-Season Grasses   | \$9,978  | Dr.Sharon Clay<br>SDSU<br>Shauna Waughtel<br>SDSU   |
| GNC09-115 | Restoring Native Tallgrass Prairie and Improving Profitability on Eastern South Dakota Grasslands with Intensive Early Stocking  | \$10,000 | Dr.Eric Mousel<br>South Dakota State University<br>Kyle Schell<br>South Dakota State University                                   |
| GNC08-098 | Floristic Quality of Native Tallgrass Pastures in Eastern South Dakota   | \$10,000 | Dr.Alexander Smart<br>South Dakota State University<br>Matthew Nelson<br>South Dakota State University                            |
| GNC03-021 | Effects of Prairie Dogs on Sustainability of Cattle Grazing in Mixed-Grass Prairie   | \$10,000 | Dr.Alexander Smart<br>South Dakota State University<br>Matthew Stoltenberg<br>South Dakota State University                       |

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

| <b>Project #</b> | <b>Project Title</b> | <b>SARE Support</b> | <b>Project Leaders</b> |
|------------------|----------------------|---------------------|------------------------|
|------------------|----------------------|---------------------|------------------------|

|           |  |          |   |
|-----------|--|----------|---|
| ONC24-147 | Multi-state safe and humane shearing workshops to address the shortage of US sheep shearers                                  | \$19,940 | Jaelyn Whaley<br>South Dakota State University          |
| ONC24-159 | Enhancing sheep health and productivity trainings  | \$21,697 | Jaelyn Whaley<br>South Dakota State University          |
| ONC21-084 | Enhancing producer resources to build small meat processing capacity and local meat demand                                   | \$39,862 | Dr.Amanda Blair<br>South Dakota State University        |
| ONC21-093 | Developing a guide for farmers or local machine shops to build an affordable roller-crimper by repurposing tillage equipment | \$39,996 | Dr.Ryan Schmid<br>Ecdysis Foundation                    |
| ONC17-026 | Oat Variety Trial under Organic Management: Increasing Profitability for Organic Producers in the North Central Region       | \$30,000 | Dr.Melanie Caffé-Tremi<br>South Dakota State University |

#### YOUTH EDUCATOR GRANTS

| Project #  | Project Title  | SARE Support | Project Leaders  |
|------------|--|--------------|--|
| YENC24-225 | The Soil Quilt Storybook as a Tool in Elementary Education   | \$5,997      | Cindy Zenk<br>South Dakota Soil Health Coalition                                 |
| YENC23-199 | YFS Sowing Opportunities for Youth Leadership (SOYL)   | \$6,000      | Sharon Oney<br>Youth & Family Services, Inc.                                     |
| YENC20-155 | Cheyenne River Youth Project — Traditional Lakota Herbs, Fruits, and Roots Garden  | \$4,000      | Julie Garreau<br>Cheyenne River Youth Project                                    |
| YENC19-138 | Planting the Pond  | \$4,000      | Dr.Kelsey Murray<br>Western Dakota Tech<br>Bryan Mitchell<br>Western Dakota Tech |
| YENC15-084 | Sustainable Agriculture Using All Five Senses  | \$1,342      | Linda Grace Freeman<br>Irene-Wakonda School                                      |
| YENC15-090 | Producer-led, multi-topic, hands-on informational seminar to educate youth about sustainable and profitable meat goat production | \$1,000      | Doug Pavel<br>Butte Vista Farm   |
| YENC12-041 | Youth Livestock Skill-a-thon   | \$1,993      | Megan Nielson<br>SDSU Extension  |

|            |  |         |   |
|------------|--|---------|---|
| YENC08-002 | Native American Roots & Shoots Farmers, Gardeners, & Gatherers Market & Educational Garden                               | \$2,000 | Jason Schoch<br>Jane Goodall's Roots & Shoots<br>Native Americas Proje  |
| YENC08-003 | Cover Crops – Grazing Alternatives Research Project  | \$2,000 | Steve Sutera<br>Bon Homme 4-H Clubs & Bon Homme FFA Chapter             |
| YENC08-004 | Understanding the Historical Uses, Current Uses, and Importance of Native Plants on the Cheyenne River Sioux Reservation | \$2,000 | Justine Kougl<br>South Dakota State University<br>Cooperative Extension |

**YOUTH GRANTS**

| <b>Project #</b> | <b>Project Title</b>  | <b>SARE Support</b> | <b>Project Leaders</b> |
|------------------|---|---------------------|------------------------|
| YNC12-067        | Cost Benefit Comparison of Raising Araucana Chicks into Egg Production Hens | \$400               | Sierra Dennison        |
| YNC09-037        | Success of Late Planted Cover Crops   | \$350               | Lyndsey Effling        |
| YNC09-040        | Interseeding Clovers into Cool- Season Pasture                              | \$400               | Austin Effling         |
| YNC09-048        | Beekeeping  | \$400               | Gretchen Rops          |
| YNC08-005        | Continuing Egg Production – A More Natural Way                              | \$400               | Michael Anderson       |
| YNC08-017        | “Putting Poultry Out to Pasture”  | \$130               | Rex Schlicht           |
| YNC08-018        | Roaming & Raising Rabbits   | \$100               | Spens Schlicht         |
| YNC08-023        | Wild Berry Opportunities  | \$400               | Ashlee Stepp           |

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**Total funding from the USDA SARE program to  
South Dakota  
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For further information on projects, contact North Central SARE at (612) 626-3113 or [ncrsare@umn.edu](mailto:ncrsare@umn.edu).

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