



# AGRICULTURE PROJECTS FUNDED IN SOUTH DAKOTA

by USDA's  
Sustainable Agriculture Research and Education (SARE) Program  
1988-2019

South Dakota has been awarded \$3,736,234 grants to support 111 projects, including but not limited to, 22 research and/or education projects, 7 professional development projects and 51 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
<a href="#">LNC19-419</a>	Investigating Rangeland Systems and Practices: Enhancing Sustainable Agriculture Curriculum in South Dakota	\$122,488	Dr.Krista Ehlert South Dakota State University
<a href="#">LNC18-405</a>	Using native rhizobia to create a drought-resilient field pea production system	\$199,813	Christopher Graham
<a href="#">LNC18-410</a>	Dynamics of Dung Invertebrate Communities, and Their Contributions to Profitability in Regenerative Rangelands	\$200,000	Dr.Jonathan Lundgren, PhD Ecdysis Foundation
<a href="#">LNC15-371</a>	Managing Grassland Vegetation with Winter-Patch Grazing: Potential Benefits to Livestock and Wildlife	\$199,294	Dr.Patricia Johnson South Dakota State University
<a href="#">LNC11-338</a>	Mob Grazing Increases Efficiency and Profitability of Livestock Production	\$199,988	Dr.Alexander Smart South Dakota State University
<a href="#">LNC10-322</a>	Development and Demonstration of a New Method of Physical Weed Control	\$174,603	Dr.Frank Forcella USDA-ARS
<a href="#">LNC10-326</a>	Small Acreage Success: Connecting Natural Resource Professionals with a Non-Traditional Audience	\$95,319	Mindy Hubert South Dakota State University Dr.Roger Gates SDSU Extension
<a href="#">LNC09-311</a>	South Dakota Beginning Farmer Training and Linking Project	\$25,000	Frank James Dakota Rural Action Tonya Haigh Dakota Rural Action
<a href="#">LNC07-277</a>	Patch Burn-Grazing to Promote Environmental Sustainability	\$144,685	Dr.Alexander Smart South Dakota State University
<a href="#">LNC07-278</a>	Benefits of forage-based heifer development and post-AI supplementation.	\$149,026	Dr.George Perry South Dakota State University
<a href="#">LNC07-280</a>	Post-Prairie Dog Rangeland Recovery	\$147,470	Dr.Patricia Johnson South Dakota State University

<a href="#">LNC05-260</a>	Effectiveness of thiamin in reducing the impacts of high-sulfate water	\$144,805	Dr.Patricia Johnson South Dakota State University
<a href="#">LNC03-224</a>	From Food Stamps to Home Production	\$135,000	Ann Krush Center for Permaculture as a Native Science
<a href="#">LNC01-194</a>	Profit by Planning: Helping Fresh Market Vegetable Growers Meet Financial Goals and Improve their Quality of Life	\$71,914	John Hendrickson CIAS, UW-Madison
<a href="#">LNC00-163</a>	Rosebud Producers Develop WIC Markets	\$94,000	Ann Krush Center for Permaculture as a Native Science
<a href="#">LNC96-108</a>	Restoration of Economic and Ecological Sustainability in Western Rangeland: A Handbook	\$62,800	W. Carter Johnson S. Dakota St. Univ., Dept of Hort., Forestry, Landscape, & Parks
<a href="#">LNC95-079</a>	The Effect of Spring Seeded Annual Medic, Genus Medicago, on Weed Management and Soil Quality in Corn Production	\$73,000	Sharon Clay Plant Science Dept, South Dakota State University
<a href="#">LNC93-055</a>	Economic and Environmental Implications of 1990 Farm Bill Sustainability Provisions in Water Quality Sensitive Areas	\$82,650	Thomas Dobbs South Dakota State University
<a href="#">LNC92-009.3</a>	Agronomic and Whole-Farm Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains	\$47,150	James Smolik South Dakota State University
<a href="#">LNC90-009.2</a>	Agronomic and Whole-Farm Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains	\$67,950	James Smolik South Dakota State University
<a href="#">LNC89-009.1</a>	Agronomic and Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains	\$60,000	James Smolik South Dakota State University
<a href="#">LNC88-009</a>	Agronomic and Economic Analyses of Alternative Small Grain/Row Crop Production Systems for the Northern Plains	\$66,700	James Smolik South Dakota State University

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">ENC15-144</a>	Learning About the Benefits of Integrated Crop-Livestock Systems on Soil Health	\$73,861	Julie Walker South Dakota State University
<a href="#">ENC07-095</a>	Educational Curricula and Professional Development Training for Energy Efficient Production Practices.	\$49,947	Dr.David Clay South Dakota State University
<a href="#">ENC04-077</a>	Building Knowledge of Sustainable Rangeland Management Using Information Technology – Northern Great Plains Partnership	\$16,719	Dr.Roger Gates SDSU Extension
<a href="#">ENC03-074</a>	Advanced Training in Sustainable Production Systems in the Northern	\$63,556	Dr.Roger Gates SDSU Extension

Great Plains

<a href="#">ENC00-052</a>	Training in Sustainable Livestock Production Systems on Rangelands of the Western Dakotas	\$80,642	Hubert Patterson South Dakota State University
<a href="#">ENC98-037.1</a>	Outreach Education for Permaculture as Native Science	\$36,450	Ann Krush Center for Permaculture as a Native Science
<a href="#">ENC97-022</a>	Outreach Education for Permaculture as Native Science	\$47,960	Ann Krush Center for Permaculture as a Native Science

#### FARMER/RANCHER GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">FNC19-1187</a>	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 Butte Vista Farm
<a href="#">FNC19-1197</a>	Wiconi Waste Resistance Farm a Lakota regenerative agroforestry permaculture demonstration farm	\$9,000	Michelle Tyon 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 Three Heart Farm
<a href="#">FNC19-1185</a>	High Efficiency Year-Round Tropical Greenhouse	\$9,000	Shannon Mutschelknaus Wayward Springs Acres
<a href="#">FNC18-1124</a>	Rebel Earth Farms' Value-Added, Direct Marketing Lakota Herbal Tea High-tunnel Production	\$7,500	Patricia Hammond Rebel Earth Farms
<a href="#">FNC18-1131</a>	Edible Net Wrap: A Possible Solution to Livestock Longevity	\$7,500	Amanda Konechne 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 Hines Hops Farm
<a href="#">FNC16-1031</a>	Controlling Cedar Tree Invasion by Rotational Grazing Goats through Pasture	\$6,793	Adam Carlson 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 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 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 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 Whetstone Grazing, LLC Peter Bauman South Dakota State University
<a href="#">FNC12-862</a>	Growing, Processing and Selling Organic Grape Vinegar and Verjus	\$7,391	Steven Hauff Three Heart Farm
<a href="#">FNC12-892</a>	A Hoop House in western South Dakota	\$5,290	Cathy Timmons Timmons Ranch
<a href="#">FNC12-846</a>	The Producer-Initiated Development of a Goat Meat Market in the Black Hills Region of South Dakota	\$14,998.50	Tom Barnes Pleasant Valley Farm
<a href="#">FNC10-815</a>	The economic value of multi-species grazing of cattle and goats utilizing goats for brush and weed control	\$18,000	Jim Deboer Kelly Frensko Penny Adler 444Farm
<a href="#">FNC09-764</a>	Grazing Lambs to Manage Weeds and Grass in a Cold Climate Vineyard	\$2,291	Karlys WELLS
<a href="#">FNC08-699</a>	Field Harvest of Grassfed Bison	\$17,802	Dan O'Brien
<a href="#">FNC08-746</a>	Winter Greenhouse	\$1,922	Bill Powers Six Mile Creek Farm
<a href="#">FNC07-666</a>	Effects of Eastern South Dakota Soils and Climate on Sustainable Production of Cold Hardy Grape Varieties	\$5,990	Dave Greenlee
<a href="#">FNC07-688</a>	Standing Grain as Winter Grazing for Cattle	\$929.52	Jennifer Walker
<a href="#">FNC06-635</a>	From Field to Store-Front – Designing On-Line Commerce for Wunder Flax	\$5,200	John Wunder
<a href="#">FNC06-597</a>	Monitoring Rangeland Health as a Means to Sustain the Rural Family Enterprise	\$9,600	Dan Anderson
<a href="#">FNC06-615</a>	Utilizing Late Season Cover Crops in a No-Till System	\$5,937	Dan Forgey
<a href="#">FNC05-566</a>	Strengthening Grazing Success Through Genetics with Flax in an Organic Environment	\$5,995	Angela Jackson-Pridie
<a href="#">FNC05-575</a>	Sustainable Energy for Sustainable Production	\$17,632	Shawn Burke
<a href="#">FNC04-542</a>	LaCreek Growing Solutions	\$15,066	Gail Kocer

<a href="#">FNC04-543</a>	South Dakota Grazing/Pasture Management Research and Tour	\$3,162	Phil Raml
<a href="#">FNC03-471</a>	South Dakota Grasslands Coalition Bus Tour to Grassland Grazing Demonstration Sites	\$5,000	Dan Rasmussen South Dakota Grasslands Coalition
<a href="#">FNC03-482</a>	Cider Hill Farm Cheese Plant	\$5,997	Joan Williams Cider Hill Farm
<a href="#">FNC03-450</a>	Growing Native Fruits of the North Central Region	\$6,000	Kim Graber
<a href="#">FNC02-412</a>	Low Cost Precision Supplements to Add Profit to Cow-Calf Operations	\$5,153	Jim Faulstich Day Break Ranch
<a href="#">FNC02-437</a>	Development of Self-Sustaining Farmer's Market in Clay County, South Dakota	\$4,032	Grace Freeman
<a href="#">FNC01-348</a>	Management and Control of Candian Thistle in Limited Access and Field Locations	\$3,040	Jordan Dawn Enormous Brontosaurus Organic Farm
<a href="#">FNC01-351</a>	Developing Added Value, Convenience Products From Free-Range Pastured Chickens	\$14,513	Tom Neuberger
<a href="#">FNC01-354</a>	The Value of Value Added Products from Farm to Farm Market	\$4,858	Gail Dawn
<a href="#">FNC00-327</a>	Kiyaksa Timber Salvage and Restoration Project	\$2,546	Marcell Bull Bear
<a href="#">FNC00-331</a>	Weed Control	\$5,000	Duane Lammers
<a href="#">FNC99-009</a>	Horse Spirit Youth Ranch	\$14,700	Victor Young
<a href="#">FNC99-248</a>	Improve Grazing Profits by Marketing Cedar	\$5,000	Leroy Smith
<a href="#">FNC99-008</a>	Interns for Garden Markets	\$8,000	Ann Krush
<a href="#">FNC98-004</a>	Interns for Rosebud WIC Gardens	\$8,000	Ann Krush
<a href="#">FNC98-201</a>	Wolf's Native Garden Project	\$4,160	Charlie Smoke
<a href="#">FNC98-216</a>	The Expansion of the South Dakota	\$9,025	Tom Neuberger

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

#### GRADUATE STUDENT GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">GNC19-286</a>	Field evaluation of traffic-induced compaction and its potential impact on soil physical characteristics and crop yield	\$14,982	Jasdeep Singh South Dakota State University Dr.Sandeep Kumar South Dakota State University
<a href="#">GNC18-254</a>	Predation, Herbivory, and Farmer Profitability and Sustainability in Response to Inter Seeded Covercrops in Standing Corn for Agroecosystem Diversification	\$11,906	Jonathan Lundgren South Dakota State University Michael Bredeson
<a href="#">GNC16-227</a>	Interactive Effects of Cover Crops, Soil Health Practices, and Insect Community Dynamics on Corn Production	\$9,998	Jonathan Lundgren South Dakota State University Claire LaCanne, M.S. South Dakota State University
<a href="#">GNC15-200</a>	Effect of Cover Crops on Beef Animal Performance and Soil Health	\$9,999	Dr.Derek Brake South Dakota State University Brooke Brunsvig South Dakota State University
<a href="#">GNC15-207</a>	Contributions of Dung Arthropods to Sustainable Pest Management in Rangeland Systems of the Northern Great Plains	\$9,994	Jonathan Lundgren South Dakota State University Jacob Pecenka South Dakota State University
<a href="#">GNC14-185</a>	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 SDSU Extension Kurt Chowanski South Dakota State University West River Ag Center
<a href="#">GNC12-148</a>	A Process-Based Nutrient Model for the Bedpack Manure of Confined Beef	\$9,860	Dr.Erin Cortus South Dakota State University

	Systems		Ferouz Ayadi South Dakota State University
<a href="#">GNC10-118</a>	Using Forage Quality Testing to Predict Nitrogen Replacement Value of Cover Crops	\$9,967	Peter Sexton Greg DeRynck South Dakota State University
<a href="#">GNC10-124</a>	Interseeding Yellow-flowered Alfalfa into Crested Wheatgrass Stands for Multiple Uses and Benefits	\$9,060	Dr. Roger Gates SDSU Extension Lan Xu South Dakota State University Christopher Misar South Dakota State University
<a href="#">GNC10-130</a>	Prairie Restoration: Effects of Burning, Herbicide, and Nitrogen Manipulation to Reduce Invasive Cool-Season Grasses	\$9,978	Dr. Sharon Clay SDSU Shauna Waughtel SDSU
<a href="#">GNC09-115</a>	Restoring Native Tallgrass Prairie and Improving Profitability on Eastern South Dakota Grasslands with Intensive Early Stocking	\$10,000	Dr. Eric Mousel South Dakota State University Kyle Schell South Dakota State University
<a href="#">GNC08-098</a>	Floristic Quality of Native Tallgrass Pastures in Eastern South Dakota	\$10,000	Dr. Alexander Smart South Dakota State University Matthew Nelson South Dakota State University
<a href="#">GNC03-021</a>	Effects of Prairie Dogs on Sustainability of Cattle Grazing in Mixed-Grass Prairie	\$10,000	Dr. Alexander Smart South Dakota State University Matthew Stoltenberg South Dakota State University

#### ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">ONC17-026</a>	Oat Variety Trial under Organic Management: Increasing Profitability for Organic Producers in the North Central Region	\$30,000	Dr. Melanie Caffé-Trembl South Dakota State University

#### YOUTH EDUCATOR GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">YENC19-138</a>	Planting the Pond	\$4,000	Dr. Kelsey Murray Western Dakota Tech Bryan Mitchell Western Dakota Tech
<a href="#">YENC15-084</a>	Sustainable Agriculture Using All Five Senses	\$1,342	Linda Grace Freeman Irene-Wakonda Elementary School
<a href="#">YENC15-090</a>	Producer-led, multi-topic, hands-on informational seminar to educate youth about sustainable and profitable meat goat production	\$1,000	Doug Pavel Butte Vista Farm
<a href="#">YENC12-041</a>	Youth Livestock Skill-a-thon	\$1,993	Megan Nielson SDSU Extension
<a href="#">YENC08-002</a>	Native American Roots & Shoots Farmers, Gardeners, & Gatherers Market & Educational Garden	\$2,000	Jason Schoch Jane Goodall's Roots & Shoots Native Americas Project
<a href="#">YENC08-003</a>	Cover Crops – Grazing Alternatives Research Project	\$2,000	Steve Sutera

Bon Homme 4-H Clubs & Bon Homme  
FFA Chapter

<a href="#">YENC08-004</a>	Understanding the Historical Uses, Current Uses, and Importance of Native Plants on the Cheyenne River Sioux Reservation	\$2,000	Justine Kougl South Dakota State University Cooperative Extension
----------------------------	---	---------	---

#### YOUTH GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">YNC12-067</a>	Cost Benefit Comparison of Raising Araucana Chicks into Egg Production Hens	\$400	Sierra Dennison
<a href="#">YNC09-040</a>	Interseeding Clovers into Cool- Season Pasture	\$400	Austin Effling
<a href="#">YNC09-048</a>	Beekeeping	\$400	Gretchen Rops
<a href="#">YNC09-037</a>	Success of Late Planted Cover Crops	\$349.99	Lyndsey Effling
<a href="#">YNC08-005</a>	Continuing Egg Production – A More Natural Way	\$400	Michael Anderson
<a href="#">YNC08-017</a>	“Putting Poultry Out to Pasture”	\$130	Rex Schlicht
<a href="#">YNC08-018</a>	Roaming & Raising Rabbits	\$100	Spens Schlicht
<a href="#">YNC08-023</a>	Wild Berry Opportunities	\$400	Ashlee Stepp

#### PDP STATE PROGRAM GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">NCSD19-001</a>	South Dakota 2019-20 SARE State Plan of Work	\$129,998	Dr.Alexander Smart South Dakota State University Dr.Rhoda Burrows South Dakota State University James Doyle South Dakota State University Extension
<a href="#">NCSD17-001</a>	South Dakota Annual State Report	\$109,709	Dr.Alexander Smart South Dakota State University

---

**Total funding from the USDA SARE program to  
South Dakota  
\$3,736,234**

---



For further information on projects, contact North Central SARE at (612) 626-3113 or [ncrsare@umn.edu](mailto:ncrsare@umn.edu).

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