



AGRICULTURE PROJECTS FUNDED IN NORTH DAKOTA

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

North Dakota has been awarded \$5,611,893 grants to support 120 projects, including but not limited to, 32 research and/or education projects, 11 professional development projects and 50 producer-led projects. North Dakota has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE support	Project Leaders
LNC19-420	Examining the role of shelterbelts (tree plantings) on early-season honey production and hive growth of honeybees in the North Central Region (NCR).	\$199,922	Benjamin Geaumont North Dakota State University
LNC19-424	Perennial flax: a new crop for sustainable agriculture in the Northern Plains	\$199,998	Dr.Burton Johnson North Dakota State University
LNC19-426	Grazing Management Practices to Enhance Soil Health in the Northern Great Plains	\$198,168	Miranda Meehan North Dakota State University
LNC18-412	Whole System Approach to Integrated Crop/Livestock Production to Enhance Soil Health and Profitability of Cropping and Livestock Systems in the Northern Great Plains	\$199,995	Michael Ostlie, Michael Ostlie North Dakota State University
LNC16-381	Effect of Long-Term Integrated Crop and Livestock Systems on Forage Finishing, Soil Fertility, Nitrogen Mineralization, Carbon Sequestration, and Profitability	\$199,998	Douglas Landblom North Dakota State University-Dickinson Research Extension Center
LNC15-373	It All Adds Up: Data Collection to Increase Profitability of Small-scale Vegetable Growers on the Northern Great Plains	\$196,145	Holly Mawby Dakota College at Bottineau ECH
LNC12-340	Evaluating the Sustainability of Beef Cattle Breeding Systems	\$199,995	Dr.Carl Dahlen North Dakota State University
LNC12-347	Increasing Varietal Suitability and Availability of Cowpea and Forage Radish Cover Crop Seed for Northern Climates	\$199,776	Frank Kutka NPSAS Karri Stroh Northern Plains Sustainable Agriculture Society
LNC11-332	Effect of Optimal Water Management for Sustainable and Profitable Crop Production and Improvement of Water Quality in Red River Valley	\$199,706	Dr.Xinhua Jia North Dakota State University
LNC11-335	Increasing Sustainability of Livestock Production of the Northern Great Plains	\$199,736	Douglas Landblom

			North Dakota State University-Dickinson Research Extension Center
<u>LNC09-308</u>	Ranchers Mentoring Network – Ranchers Sharing Ideas with Ranchers	\$175,000	Mary Stevens Dakota Prairies RC&D
<u>LNC09-310</u>	Cover Crop Selection and Use in Organic No-Till Farming	\$155,730	Dr.Patrick Carr Central Agricultural Research Center
<u>LNC09-312</u>	Southwest North Dakota Soil Health Demonstration	\$175,000	Toby Stroh Dakota West RC &D Ty Eisenbraun Central Stark and Western Soil Conservation
<u>LNC06-265</u>	Organic Education: Increasing Opportunities for Farmers and Processors	\$114,811	Brit Jacobson FARRMS
<u>LNC04-250</u>	Promoting sustainable range-livestock enterprises through partnerships which develop producer mentoring networks for best management practices	\$93,006	Paul Nyren North Dakota State University Central Grasslands
<u>LNC02-211</u>	Aiding in the Coexistence of Sustainable and Biotech Agriculture by Minimizing Contamination	\$99,978	Bradley Brummond North Dakota State University
<u>LNC02-201</u>	Bringing Small-Grain Variety Development and Selection onto Organic Farms	\$72,953	Dr.Patrick Carr Central Agricultural Research Center
<u>LNC01-182</u>	Enhancing Grain Production of Great Plains Cropping Systems with a Legume-Pasture Phase	\$42,676	Dr.Patrick Carr Central Agricultural Research Center
<u>LNC01-196</u>	Agroecology Analysis of Farming Systems: A Summer Course	\$18,303	Dr.Mary Wiedenhoef Iowa State Univ
<u>LNC00-162</u>	Soil Quality Changes In Different Residue Management Systems Compared To Grassland After 22 Years	\$20,000	Edward Deibert North Dakota State University
<u>LNC99-153</u>	Using Alternative Forages on Traditional Small Grain Crop Land in Rotational Grazing Systems for the Northern Great Plains	\$36,670	Woodrow Poland North Dakota State University, Dickinson Research Extension Ctr
<u>LNC98-126</u>	Marketing Sustainable and/or Organic Products in Small Metro Areas	\$41,355	David Watt Dept of Agricultural Economics, North Dakota State University
<u>LNC97-113</u>	Maximizing Forage and Minimizing Grain Intake in Bison Fed for Meat	\$78,360	Vern Anderson Carrington Research/Extension Center, North Dakota State University
<u>LNC92-010.3</u>	Substituting Legumes for Fallow in U.S. Great Plains Wheat Production	\$113,000	John Gardner North Dakota State University
<u>LNC91-032</u>	Trap Cropping to Minimize Insecticide Application and Farm Input Costs in Sunflower Production	\$35,455	Gary Brewer North Dakota State University

LNC90-010.2	Substituting Legumes for Fallow in U.S. Great Plains Wheat Production	\$185,000	John Gardner North Dakota State University
LNC90-030	Ruminant Production Systems Inter-Related with Non-Traditional Crop Management	\$108,800	Vern Anderson Carrington Research/Extension Center, North Dakota State University
LNC89-013.1	Evaluation of Integrated Low-Input Crop-Livestock Production Systems	\$82,700	John Gardner North Dakota State University
LNC89-023	LISA IMPACTS: Social, Economic, and Demographic Impacts of Low-Input/Sustainable Agriculture Practices on Farms and Rural Communities in the Northwest Area	\$65,300	David Watt Dept of Agricultural Economics, North Dakota State University
LNC89-010.1	Substituting Legumes for Fallow in U.S. Great Plains Wheat Production	\$82,000	John Gardner North Dakota State University
LNC88-010	Substituting Legumes for Fallow in U.S. Great Plains Wheat Productions	\$74,000	John Gardner North Dakota State University
LNC88-013	Evaluation of Integrated Low-Input Crop-Livestock Production Systems	\$50,000	John Gardner North Dakota State University

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
ENC18-165	Cover Crops and Forage Grazing Training Program in North Dakota	\$74,855	Dr.Marisol Berti North Dakota State University
ENC15-142	Enhancing Soil Health with Cover Crops in North Dakota: Training Program	\$71,012	Dr.Marisol Berti North Dakota State University
ENC12-131	Expanding Opportunities for Sustainable Small Farm Specialty Crop Producers: Training Educators in Feasibility Analysis, Marketing, and Community Building	\$74,980	Dr.Glenn Muske North Dakota State University
ENC08-105	Soil Health/Soil Biology Training for the Northern Plains	\$73,922.50	Tom Hanson ND Association of Soil Conservation Districts
ENC01-055	Bison Education in the Northern Plains	\$50,740	Thomas Hanson North Dakota State University
ENC99-042	Reservation Education of Leafy Spurge Control with Multi-Species Grazing of Sheep and Cattle	\$76,476	Thomas Hanson North Dakota State University
ENC98-030	Marketplace '99	\$12,600	Thomas Hanson North Dakota State University
ENC98-031	Revitalizing Community Development in the Dakotas	\$64,700	Thomas Hanson North Dakota State University

ENC97-002.2	Sustainable Agriculture Distance Learning	\$57,700	Thomas Hanson North Dakota State University
ENC96-002.1	Sustainable Agriculture Training Project for North Dakota and South Dakota	\$32,044	Darnell Lundstrom North Dakota State University Extension Service
ENC94-002	North Dakota/South Dakota Professional Development Project	\$122,000	Darnell Lundstrom North Dakota State University Extension Service

FARMER/RANCHER GRANTS

Project #	Project Title	SARE support	Project Leaders
FNC19-1164	Improving plant diversity in non-diverse grasslands on a small family farm in southwest North Dakota	\$8,879	Benjamin Geaumont Geaumont Farms
FNC18-1123	Bale Grazing to Build Soil Health	\$15,000	Erin Gaugler Gaugler Farm and Ranch
FNC17-1085	Controlling Imported Cabbage Worm and Cabbage Looper Damage in Brassicaceae Crops in an Organic Production System	\$7,500	Ross Lockhart Heart and Soil Farm
FNC17-1098	Improving Soil Health by Rotationally Grazing Cattle on Full Season Cover Crop Cocktails on a No-till Farm in the Red River Valley of North Dakota	\$15,000	Clint Severance From The Ground Up Farm
FNC15-1011	Quinoa Production in Central North Dakota	\$13,516	Glendon Philbrick Hiddendale Farm
FNC14-961	Growing Peaches, Pears, Cherries and Strawberries in an Unheated High Tunnel	\$7,499	Alyce Ann Lunde Lakeside Garden
FNC13-908	Utilizing cover crops to increase productivity, health & vigor on tame grass pasture	\$6,904.86	Donnie Feiring Feiring's Cattle Co.
FNC13-913	Kesselring-Kindred ND Native Wild Grape Vineyard: Establishing Wild Grapes in a Vineyard Setting	\$7,500	Jason Kesselring Kesselring Vineyards
FNC13-924	New Buckwheat Varieties for Greater Sustainability	\$18,881	Anne Ongstad Whitman Ranch
FNC13-929	New Method to Eliminate Ovine Progressive Pneumonia in Sheep Flocks in North Dakota	\$18,250	Rick Schmidt NDSU Extension Service
FNC10-832	Bringing Hayland and CRP into Production Using Cover Crops and No-Till using Forage Soybeans and Other Legumes, What Works Best?	\$6,000	Jeremy Wilson Wilson Farm
FNC10-837	Multi-Species Cover Crops Control	\$18,000	Linda Grotberg

	Weeds and Improve Fertility in Organic No-Till Fields		Prairie Farm Pilot Project
FNC10-796	Developing a mob grazing system to improve the sustainability and profitability of a cattle operation in North Dakota.	\$5,990.60	Krista Reiser Reiser Ranch Jeremia Reiser Reiser Ranch
FNC10-828	Optimizing sorghum-sudan/forage soybean cover crop populations and screening sorghum varieties for organic cover crop performance, forage, and seed production in the Northern Great Plains region	\$17,912	Richard Gross David Podoll raymond berry
FNC09-750	Reducing the Impact of Soybean Aphid on Organic Soybeans through Multiple Management Tactics.	\$18,000	Mark Askegaard
FNC09-754	Screening Open-Pollinated Vegetable Varieties Bred and Released In North Dakota for Suitability to Organic Production Systems and Local Markets	\$17,988	Theresa Podoll Prairie Road Organic Farm Steve Zwinger North Dakota State University Carrington Research Extension Center Marvin Baker North Star Farms
FNC08-702	Building Organic Soil Health with Green Manure and Cover Crops	\$1,806.60	Pat Frank
FNC08-709	Building the Local Food Link in Valley City	\$17,829	Sharon Clancy
FNC08-717	Small and Mid-sized Farm Sustainability Through Crop Diversity and Photosynthesis	\$18,000	Kelly Severson
FNC08-738	Organic No-Till- The Ultimate Cropping System For Soil Health and Farm Sustainability	\$18,000	Linda Grotberg Prairie Farm Pilot Project
FNC07-667	Is It Possible? Can We Have Organic Sustainable Agriculture with Minimal Tillage while Soil Building and Producing High Quality Forage for Grass-Fed Beef	\$5,920.47	Anne Ongstad Whitman Ranch
FNC06-596	Oyate Tawoju (People's Garden)	\$18,000	Delano Dogskin
FNC06-607	Kids Get the Skinny on Whole Grains	\$18,000	Adrian Biewer
FNC06-625	Prairie Farm Pilot Project – Transitioning from Conventional to Organic Farming	\$18,000	Richard Grotberg
FNC05-587	Central North Dakota Pastured Poultry Institute	\$17,910	Linda Grotberg Prairie Farm Pilot Project
FNC05-591	Farmer-Led Development and Commercial Release of Improved Hard Red Spring Wheat Variety	\$17,995	Blaine Schmaltz

FNC05-592	Alternative Nutrient Recycling System	\$6,000	Kevin Throener
FNC04-519	Developing & Maintaining Sustainable Agroforestry & Natural Resource Systems on the Middle Sheyenne Watershed in East-Central North Dakota	\$17,120	Elmer Bakke
FNC04-507	Colgate Identity Preserved Growers Association	\$18,000	William Satrom
FNC03-442	Evaluation of an Annual Cover Crops for No-till Management	\$5,868	Clark Lemley
FNC03-452	Portable Poultry Eviscerating Unit	\$15,590	Dennis Schill
FNC03-461	Beaver Creek Pumpkin Patch/Corn Maze	\$1,089	Andrew Vetter Beaver Creek Pumpkins
FNC02-400	Bigg Dogg Cuisine Expansion	\$5,814	Linda Ova
FNC01-334	Growing Commercial Cabbage in Heavy Loam Soils in Northern North Dakota	\$14,495	Mike Johnston
FNC01-345	Sales Plan Development for Expansion of a Family On-Farm Flour Milling Company	\$5,000	Dennis Kubischta Summers Harvest Flour Mill
FNC01-360	Conducting Research on the Eradication of Canadian Thistle in Small Grains Using Sustainable Farming Methods	\$3,236	Harold Johnson
FNC00-323	Patrie's Raspberries on the Prairie Website Development and Internet Sales	\$4,738	Patti Patrie
FNC99-257	Adding Value to Medium to Low Grade Wool	\$10,160	Janet Jacobson
FNC99-259	Summers Harvest Flour Mill	\$5,000	Dennis Kubischta Summers Harvest Flour Mill
FNC99-273	Saving our Ranch with Grass	\$4,923	Brian Maddock
FNC98-229	Don't Take Grass for Granted	\$1,997	Jack Orts
FNC97-176	Grazing Yearlings on Annual Forage Pastures	\$4,986	Paul Klamm

FNC97-164	Promotion of Crop Diversification and Research of Speciality Crop Markets for Western North Dakota	\$9,680	Curt Trulson West Dakota Feed & Seed Steering Committee
FNC96-143	Networking and Education of Sustainable Bison Producers in the Northern Plains	\$9,966	David Lauth
FNC95-090	Interseeding Field Peas and Yellow Mustard for Enhanced Moisture Retention and Harvesting Ease in a No-till System	\$4,980	Vern Mayer
FNC95-120	Incorporating Holistic Resource Management	\$4,423	Larry Woodbury
FNC95-128	Identifying Management Practices that Enhance the Probability of Producing Quality Durum Wheat	\$5,000	Lawson Jones
FNC94-073	Bio-Control of Leafy Spurge	\$4,930	Dennis Dietz
FNC94-087	Hairy Vetch in Minimum-Till Organic Rotation	\$4,399	James Ryan
FNC92-016	Strip Tilling Sunflowers into Small Grain Residue	\$4,400	Lawson Jones

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE support	Project Leaders
GNC19-288	Development of Breeding Lines and Molecular Tools for Selection of Grapevines with Altered Canopy Dynamics via Dissected Foliar Morphology	\$14,951	Andrej Svyantek NDSU Harlene Hatterman-Valenti North Dakota State University Dr.Xuehui Li North Dakota State University
GNC16-219	Assessing Multi-Species Cover Crop Responses to Variable Soil Moisture and Soil Types	\$11,928	Dr.Greta Gramig North Dakota State University Kenneth Beamer North Dakota State University
GNC15-202	Effects of Pre-breeding Administration of Injectable Trace Mineral Supplements on Subsequent Reproductive Performance in Beef Herds	\$10,000	Dr.Carl Dahlen North Dakota State University Mellissa Crosswhite Oklahoma State University
GNC10-123	Weed Suppression with Winter Annual Cover Crops in Potato	\$9,950	Grant Mehring NDSU Dept of Plant Sciences
GNC10-135	Integration of Biological Control and Native Cover Crops for Canada Thistle Control	\$10,000	Dr.Greta Gramig North Dakota State University Erin Burns North Dakota State University
GNC09-113	Maintenance of Natural Sustainable Riparian Communities Located Within the Middle Sheyenne Watershed	\$9,528	Edward DeKeyser North Dakota State University Miranda Meehan North Dakota State University

<u>GNC09-106</u>	Determining efficacy of Waste Lime in Managing Fusarium Root Rot of Field Peas	\$9,964	Dr.Rubella Goswami North Dakota State University Dr.Mohamed Khan North Dakota State University Dr.Kishore Chittem NDSU
<u>GNC08-092</u>	Reducing cost to livestock producers: Very large scale aerial (VLSA) imagery compared to traditional range field monitoring methods	\$9,870	Christopher Schauer North Dakota State University Amanda Gearhart North Dakota State University
<u>GNC06-062</u>	Effect of maternal diet on ovarian development in potential replacement ewe lambs	\$10,000	Joel Caton North Dakota State University Anna Grazul-Bilska North Dakota State University Kimberly Vonnahme North Dakota State University Wendy Arndt North Dakota State University

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE support	Project Leaders
<u>ONC17-036</u>	Adoption of Cover Crops to Build Soil Health in the Northern Plains (Continuation)	\$29,488	Abbey Wick NDSU
<u>ONC17-037</u>	Evaluating Early Maturing. Cold - Tolerant White Sorghum Cultivars (Part 2)	\$22,303	Steve Zwinger North Dakota State University Carrington Research Extension Center
<u>ONC15-007</u>	Evaluating Early-Maturing, Cold-Tolerant White Sorghum Cultivars	\$29,998	Frank Kutka NPSAS
<u>ONC15-012</u>	Adaption of Cover Crops to Build Soil Health in the Northern Plains	\$27,021	Abbey Wick NDSU

YOUTH EDUCATOR GRANTS

Project #	Project Title	SARE support	Project Leaders
<u>YENC19-141</u>	Sustainable AG Day: Sustainable Agriculture Promotion and Education Day for Middle School Students in Mid-Central North Dakota	\$4,000	Dr.Indrani Sasmal Dakota College at Bottineau Dr.Jerry Migler Dakota College at Bottineau
<u>YENC13-061</u>	Squash in Sustainable Food Production	\$2,000	Sue Isbell NDSU Sioux County Extension
<u>YENC12-042</u>	ND Western 4-H Camp SARE Garden	\$1,998	Michell Effertz Irene Graves
<u>YENC12-057</u>	Utilizing Cover Crops for Sheep	\$1,982	Rick Schmidt NDSU Extension Service
<u>YENC10-029</u>	Growing Sustainable Agriculture in Southwest North Dakota	\$1,881	Andrea Bowman Bowman County Extension
<u>YENC08-005</u>	Sustainable Soils	\$2,000	Marcus Lewton

YOUTH GRANTS

Project #	Project Title	SARE support	Project Leaders
YNC10-059	The effect feeding flax to hens on the nutritional value of eggs	\$400	Ketti Ringwall
YNC09-033	A Garlic CSA Project	\$392	Neil Podoll
YNC09-042	"Chicken Riddle" Poultry Project	\$400	Abby Braaten
YNC09-047	Lamb Growth Study	\$398	Cody Knudson
YNC09-049	Soil Health Project	\$400	Kalen Hartel
YNC08-019	Soil Health Project	\$400	Kalen Hartel

PDP STATE PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
NCND19-001	North Dakota 2019-20 SARE state plan of work	\$130,000	Dr.Karl Hoppe North Dakota State Univerity CREC Clair Keene North Dakota State University Bill Hodous North Dakota State University
NCND17-001	North Dakota Annual State Report	\$110,000	Dr.Karl Hoppe North Dakota State Univerity CREC

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

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