



## AGRICULTURE PROJECTS FUNDED IN MINNESOTA

by USDA's  
Sustainable Agriculture Research and Education (SARE) Program  
1988-2016

Minnesota has been awarded \$9,861,080 to support 257 projects, including but not limited to, 65 research and/or education projects, 25 professional development projects and 119 producer-led projects. Minnesota has also received additional SARE support through multi-state projects.

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### RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">LNC16-379</a>	Evaluating Measurement Techniques of Pasture Productivity to Document Benefits of Enhanced Grazing Systems	\$109,771	Dr. Rod Greder University of Minnesota Extension
<a href="#">LNC14-364</a>	Bringing the Benefits of Legume Cover Crops to Northern Midwest Climates	\$114,497	Dr. Julie Grossman University of Minnesota
<a href="#">LNC14-360</a>	Reweaving the Economic Fabric to Support Sustainable Farms and Ag-based Businesses	\$199,634	Jan Joannides Renewing the Countryside
<a href="#">LNC13-353</a>	Promoting Sustainable Biological Control of the Soybean Aphid by Examining the Effect of Biodiversity on Releases of the Parasitoid Wasp <i>Aphelinus glycinis</i>	\$178,558	Dr. George Heimpel University of Minnesota
<a href="#">LNC12-342</a>	When Farming Reality Doesn't Match the Business Plan	\$165,293.60	Kent Solberg Sustainable Farming Association
<a href="#">LNC11-334</a>	Connecting Sustainable Farmers to Emerging Health Care Markets	\$162,952	Anna Claussen Institute for Agriculture and Trade Policy Karen Quiroz Institute for Agriculture and Trade Policy
<a href="#">LNC11-336</a>	Organic Beans and Peas: Nutritious and Gluten-free Local Foods	\$199,217	Dr. Craig Sheaffer University of Minnesota
<a href="#">LNC10-325</a>	Agripreneur Training Center	\$166,900	Kat Vann Main Street Project Niel Ritchie Main Street Project
<a href="#">LNC10-320</a>	Building Capacity for Local Foods Infrastructure Development	\$171,079	Dr. Kathryn Draeger University of Minnesota Regional Sustainable Development Partnerships Greg Schweser

			Regional Sustainable Development Partnerships
<a href="#">LNC10-328</a>	Developing Hazelnut Germplasm for the Upper Midwest	\$175,000	Dr.Lois Braun Research Associate
<a href="#">LNC09-313</a>	Farmer field school approach to increasing cover crop adoption in Iowa and Minnesota	\$174,295.73	Sarah Carlson Practical Farmers of Iowa
<a href="#">LNC09-315</a>	Sustainable Inquiry Research and Education Network (SIREN)	\$156,336	Pauline Nickel SW Research & Outreach Center
<a href="#">LNC09-316</a>	The role of imidacloprid systemic insecticide on colony collapse disorder of honey bees and decline of bumble bee pollinators	\$175,000	Dr.Vera Krischik UMinnesota
<a href="#">LNC08-294</a>	Antibiotic Uptake by Vegetable Crops from Manure-Applied Soils	\$139,420	Dr.Satish Gupta University of Minneota
<a href="#">LNC08-296</a>	Behavior Manipulation of the Multicolored Asian Lady Beetle in Midwest Vineyards: Novel Repellants and Attractants for a Sustainable IPM "Push-pull" Strategy	\$114,030	Eric Burkness University of Minnesota
<a href="#">LNC08-301</a>	Indigenous Corn Restoration Project	\$150,000	Winona LaDuke White Earth Land Recovery Project
<a href="#">LNC06-275</a>	Alternative Bedding and Management of Composting bedded Pack Dairy Barns	\$150,000	Jeffrey Reneau University of Minnesota
<a href="#">LNC05-263</a>	Ag Diversification on the Airwaves - Diversification Broadcasts to Inform and Inspire	\$124,535	Meg Moynihan Minnesota Department of Agriculture
<a href="#">LNC05-264</a>	Reducing Pesticide Use in Honey Bee Colonies through Sound Sampling and Treatment Procedures	\$150,000	Marla Spivak University of Minnesota
<a href="#">LNC04-246</a>	Green Eating and Vacationing in Minnesota: Eat and Play to Support Sustainable Agriculture	\$150,000	Jan Joannides Renewing the Countryside
<a href="#">LNC04-248</a>	Traditional Community Agriculture Restoration	\$150,000	Winona LaDuke White Earth Land Recovery Project
<a href="#">LNC03-232</a>	"Livestock Your Way" Series Publications: Producer Guides to Goal Setting and Management Options for Dairy and Poultry Enterprises in the Upper Midwest	\$73,500	Meg Moynihan Minnesota Department of Agriculture
<a href="#">LNC03-226</a>	Enhancing Pasture Productivity by Improving Winter Survival of Perennial Ryegrass	\$149,998	Paul Peterson University of Minnesota
<a href="#">LNC03-229</a>	Experiential Learning Opportunities for Graduate and Undergraduate Students	\$60,000	Helene Murray University of Minnesota

<a href="#">LNC03-231</a>	Microbial Safety of Organic Fruits and Vegetables	\$139,650	Francisco Diez-Gonzalez University of Minnesota
<a href="#">LNC02-202</a>	A Sustainable Approach to Reducing Pesticide and Antibiotic Use in Honey Bee Colonies	\$99,600	Marla Spivak University of Minnesota
<a href="#">LNC02-209</a>	New Immigrant Agriculture Project	\$69,000	Glen Hill Minnesota Food Association
<a href="#">LNC02-204</a>	Policy Research and Development to Support Multiple Benefits from Agriculture: Phase II	\$95,350	Caroline van Schaik Land Stewardship Project
<a href="#">LNC02-219</a>	Restoring Native Perennial Legumes for Forage, Feed and Food	\$100,000	Donald Wyse University of Minnesota
<a href="#">LNC02-214</a>	The Occurrence of Antibiotic Resistant Bacteria in Manure, Manure-Applied Fields, and Pets on the Farm	\$99,835	Dr.Satish Gupta University of Minneota
<a href="#">LNC01-192</a>	Beginning Farmer Program: Evaluation and Expansion	\$96,430	Karen Stettler Land Stewardship Project
<a href="#">LNC01-188</a>	Evaluating Open-Pollinated Corn Varieties	\$75,300	Zeno Wicks, III South Dakota State University
<a href="#">LNC00-179</a>	Assessing soil quality changes in alternative and conventional cropping systems	\$93,300	Deborah Allan University of Minnesota
<a href="#">LNC00-200</a>	Getting a Handle on the Barriers to Financing Sustainable Agriculture	\$69,043	Caroline van Schaik Land Stewardship Project
<a href="#">LNC00-177</a>	Managed Intensive Rotational Grazing for Farms Affected by Urban Growth	\$13,629	Julie Klocker
<a href="#">LNC00-168</a>	Phosphorus Mobilization and Weed Suppression by Buckwheat.	\$50,000	Jim Stordahl University of Minnesota Extension Service
<a href="#">LNC99-152.1</a>	A Sustainable Approach to Controlling Varroa Mites of Honey Bees	\$86,286	Marla Spivak University of Minnesota
<a href="#">LNC99-146</a>	Economic Analysis and Policy Development To Support Multiple Social, Economic and Environmental Benefits Produced by Farms	\$92,840	Mara Krinke Land Stewardship Project George Boody Land Stewardship Project
<a href="#">LNC99-155</a>	Native Perennial Legumes: New Species for Grazing Systems	\$100,000	Nancy Ehlke University of Minnesota
<a href="#">LNC99-161.1</a>	People to People: Enhancing the Quality of Life and Profitability of Family Farms	\$58,000	Lynda Converse Sustainable Farming Assn of Central Minnesota

<a href="#">LNC99-145</a>	Presenting NCR SARE Research Results in the Context of Whole Farm Planning	\$85,000	Diane Jensen The Minnesota Project John Lamb The Minnesota Project Inc
<a href="#">LNC99-149</a>	Strategies for Conversion to Organic Production Systems	\$96,472	Elizabeth Dyck University of Minnesota, Southwest Experiment Station
<a href="#">LNC98-136</a>	Addressing Agricultural Practices and Water Quality Issues through Youth-Developed Decision Cases	\$41,498	Marla Reicks Dept of Food Science and Nutrition, University of Minnesota
<a href="#">LNC98-128</a>	Congregationally Supported Agriculture	\$38,900	Phillip Arnold Center Chapter Sustainable Farming Assn
<a href="#">LNC98-134</a>	Perennial Legumes for Sustainable Pasture Systems	\$99,800	Dr.Craig Sheaffer University of Minnesota
<a href="#">LNC98-133</a>	Strengthening Links Between Meat Producers, Processors, and Consumers	\$6,000	Jenifer Buckley Sustainable Farming Association of Northeast Minnesota
<a href="#">LNC97-117</a>	A Sustainable Approach to Controlling Mite Pests of Honey Bees	\$78,750	Marla Spivak University of Minnesota
<a href="#">LNC97-111</a>	Farm Beginnings: An Educational Training and Support Program to Establish Young Dairy Farmers in Southeast Minnesota	\$90,000	Chuck Schwartau Goodhue County Extension
<a href="#">LNC96-103</a>	Experiential Learning Activities for an Undergraduate Minor in Sustainable Agriculture Systems	\$122,732	Dr.Craig Sheaffer University of Minnesota
<a href="#">LNC96-109</a>	Packaging, Testing, and Disseminating a Set of Indicators for Ecological, Financial, and Social Monitoring on Farms	\$88,000	George Boody Land Stewardship Project
<a href="#">LNC96-098</a>	People to People: Sustainable Agriculture Networking for Farmers and Rural Communities	\$97,000	DeEtta Bilek Sustainable Farming Association of Minnesota
<a href="#">LNC95-092</a>	Obstacles to Market Access for Family Farm Hog Producers	\$50,180	Mark Schultz Land Stewardship Project
<a href="#">LNC95-090</a>	Weed Control for More Sustainable Soybean Production	\$80,000	Nicholas Jordan Dept of Agronomy and Plant Genetics, University of Minnesota
<a href="#">LNC94-075</a>	Biological, Financial, and Social Monitoring to Develop Highly Sustainable Farming Systems	\$50,000	George Boody Land Stewardship Project
<a href="#">LNC94-067</a>	Future Farmers in Sustainable Agriculture	\$20,800	Leslie Reindl Minnesota Food Association
<a href="#">LNC93-058</a>	Annual Medics: New Legumes for Sustainable Farming Systems in the Midwest	\$130,000	Dr.Craig Sheaffer University of Minnesota

<a href="#">LNC92-045</a>	Midwest Alternative Agriculture Education Network	\$120,000	Patrick Moore Land Stewardship Project
<a href="#">LNC91-034</a>	Strip Cropping Systems to Reduce Energy Inputs and Optimize Profitability	\$53,000	Gyles Randall University of Minnesota
<a href="#">LNC90-027</a>	Rotational Grazing Systems for Wisconsin and Minnesota Dairy Farmers - An Evaluation of Animal and Forage Performance and Whole-Farm Socio-Economic Analysis	\$118,700	Dr.Craig Sheaffer University of Minnesota
<a href="#">LNC90-011.2</a>	The Middle Border On-Farm Research Consortium	\$113,580	Patrick Moore Land Stewardship Project
<a href="#">LNC89-020.1</a>	Performance and Economics of a Low-Input Feeder Swine Operation	\$21,700	Carlos Pijoan College of Veterinary Medicine
<a href="#">LNC89-011.1</a>	The Middle Border On-Farm Research Consortium	\$107,697	Audrey Arner Land Stewardship Project
<a href="#">LNC88-001</a>	Integration of Conservation Tillage, Animal Manures, and Cultural Pest Control in Corn	\$98,500	David Andow University of Minnesota
<a href="#">LNC88-020</a>	Performance and Economics of a Low-Input Farrow to Feeder Swine Operation	\$42,100	Carlos Pijoan College of Veterinary Medicine
<a href="#">LNC88-011</a>	The Middle Border On-Farm Research and Information Network	\$75,000	Patrick Moore Land Stewardship Project

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">ENC16-151</a>	Empowering Professionals with Sustainable Farm Law	\$70,613	Rachel Armstrong Farm Commons
<a href="#">ENC15-147</a>	Networking for Soil Health	\$75,000	Wayne Monsen Sustainable Farming Association Kent Solberg Sustainable Farming Association
<a href="#">ENC15-145</a>	Soil Health and Nutrient Management Training for Immigrant and Minority Farming Communities	\$74,760	Dr.Julie Grossman University of Minnesota
<a href="#">ENC13-141</a>	Integrating Continuous Living Cover (CLC) into Farming Systems through Professional Development	\$74,658	Richard Warner Green Lands Blue Waters
<a href="#">ENC13-140</a>	The Conservation Biological Control Short Course	\$71,710	Eric Mader The Xerces Society
<a href="#">ENC12-135</a>	Growing a Network of GAPs Educators in the Upper Midwest	\$74,385	Michele Schermann University of Minnesota Annalisa Hultberg

			University of Minnesota
<a href="#">ENC10-114</a>	Sustainable Poultry, Pastures, Soils, and Vegetable Education in Minnesota	\$73,952	Timothy Artt University of Minnesota Extension
<a href="#">ENC09-110</a>	Building Extension Capacity in the North Central Region to Address Agricultural Energy Use	\$74,919	Patrick Walsh UW-Madison Scott Sanford University of Wisconsin-M
<a href="#">ENC08-104</a>	Building Minnesota's Farm to School Policy and Infrastructure through University of Minnesota Extension and Community Partnerships	\$75,000	Stephanie Heim University of Minnesota - Extension
<a href="#">ENC07-097</a>	Sustainable Renewable Energy Training for Agriculture and Natural Resource Professionals	\$50,000	Karen Quiroz Institute for Agriculture and Trade Policy Jim Kleinschmit Institute for Agriculture and Trade Policy
<a href="#">ENC06-091</a>	Organic Dairy Short Course for Ag Professionals	\$66,250	Meg Moynihan Minnesota Department of Agriculture
<a href="#">ENC05-086</a>	Conservation Planning Training for Private Sector Agronomy Service and Local Conservation Agencies	\$53,562	Tim Gieseke Minnesota Project
<a href="#">ENC04-083</a>	A Tri-State Expansion: Educator Training using the Farm Beginnings Model	\$74,856	Catherine Twohig Land Stewardship Project
<a href="#">ENC04-080</a>	Food Alliance Workshops: Helping Extension Educators Build Community Food Systems with Certified, Sustainable Agricultural Practices	\$13,645	James Ennis
<a href="#">ENC03-073</a>	Smarter Farmers, Smarter Lenders: Educating Toward a Sustainable Community	\$90,000	Caroline van Schaik Land Stewardship Project
<a href="#">ENC02-064</a>	Bringing Farmland Conservation-Based Estate Planning to Agricultural Professionals	\$83,314	Julia Freedgood American Farmland Trust
<a href="#">ENC02-069</a>	Business Planning for Alternative Enterprises - Train the Trainer Program	\$62,775	Robert Craven University of Minnesota
<a href="#">ENC02-065</a>	Elementary Organics: Multi-track Training for Minnesota's Agricultural Educators and Advisors	\$59,360	Meg Moynihan Minnesota Department of Agriculture
<a href="#">ENC02-068</a>	Supporting Community with Retail and Institutional Food Service; Keeping it Safe, Legal and Local	\$42,206	Audrey Amer Land Stewardship Project
<a href="#">ENC01-062</a>	Getting a handle on the barriers to financing sustainable agriculture	\$69,043	Caroline van Schaik Land Stewardship Project
<a href="#">ENC99-038</a>	"Training on Grazing and Monitoring Riparian Corridors in Minnesota and Wisconsin"	\$71,110	Caroline van Schaik Land Stewardship Project
<a href="#">ENC97-019</a>	Minnesota Sustainable Farming	\$41,600	DeEtta Bilek

	Association Chapter Networking		Sustainable Farming Association of Minnesota
<a href="#">ENC96-014</a>	Decision Cases for Sustainable Agriculture: A Video Training Project for Professional Development	\$52,380	Helene Murray MN Institute for Sus. Agric., Univ. of MN
<a href="#">ENC95-009</a>	A Comprehensive Educational Program for "Training the Trainers" in Sustainable Agriculture in Minnesota, Wisconsin, and Iowa	\$108,905	Helene Murray MN Institute for Sus. Agric., Univ. of MN
<a href="#">ENC95-005</a>	Life After CRP	\$30,000	Peter Buessler Minnesota Dept of Natural Resources

#### FARMER/RANCHER GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">FNC16-1042</a>	Anishinaabe Traditional Food Restoration for Local and Market Consumption	\$15,000	Winona LaDuke
<a href="#">FNC16-1048</a>	Assessing the Value of Hay Litter During Winter Bale Grazing	\$12,139	John Mesko Lighthouse Farm
<a href="#">FNC16-1063</a>	Increasing Soil Health and Infiltration with Cover Crops	\$7,398	Vernon Uit De Flesch Uit de Flesch Farms
<a href="#">FNC16-1047</a>	Subsurface Irrigation & Aerogation to Improve Productivity and Reduce Nutrient Movement	\$7,460	Russ Martie Russ Martie Farm
<a href="#">FNC15-1002</a>	Intensive Rotational Grazing with Sheep on Riparian Land to Target Invasive Reed Canary Grass and Common Buckthorn	\$7,477	Nancy Lunzer Bear Street Ranch LLC
<a href="#">FNC15-1022</a>	Native Youth Plant a Bee Meadow	\$7,500	Joy Persall Peta Wakan Tipi/Dream of Wild Health
<a href="#">FNC14-974</a>	Adapting Cover Crops to Northern Climate Conventional Cropping Systems	\$22,471	Troy Salzer Carlton County Extension Abe Mach
<a href="#">FNC14-964</a>	Cover Crop Network Costshare	\$22,340	Robin Moore Land Stewardship Project Taylor Morical Morical Farms
<a href="#">FNC14-965</a>	Developing Profitable and Sustainable Fiber Markets in Southern Minnesota	\$19,800	Jean Mueller State of Minnesota
<a href="#">FNC14-948</a>	Management of the Spotted Wing Drosophila using High Tunnels	\$14,850	Erik Gundacker Scenic Valley Farm
<a href="#">FNC14-960</a>	Open Source Solutions for Vineyard Health Management	\$7,500	Stephen Lunak Cedarcreak Vineyard
<a href="#">FNC13-925</a>	Developing Commercial Elderberry	\$14,980	Christopher Patton



	Production in Minnesota		Minnesota Elderberry Cooperative
<a href="#">FNC13-909</a>	Water Capture from High Tunnel Diversion into Irrigation System using Renewable Energy	\$7,499	Cherry Flowers Page & Flowers
<a href="#">FNC13-914</a>	White Earth Land Recovery Project Fish Fertilizer Project	\$7,500	Winona LaDuke White Earth Land Recovery Project
<a href="#">FNC12-874</a>	Developing Soil Fertility Systems for Urban Agriculture in the Upper Midwest	\$7,239	Alexander Liebman Stone's Throw Urban Farm
<a href="#">FNC12-860</a>	Finishing Time And Weights Of Grass-Fed Beef Animals	\$19,829	Jane Jewett WillowSedge Farm
<a href="#">FNC12-894</a>	Heron Lake Watershed District Cover Crop Demonstration Project	\$6,642	Jan Voit Heron Lake Watershed District
<a href="#">FNC12-870</a>	Profiles of Farmers in Sustainable Agriculture	\$14,634.25	Tim King Whole Farm Cooperative
<a href="#">FNC12-890</a>	Sustainable Straw Based Animal Welfare Friendly Growing Unit for Hogs	\$7,450	Paul Sobocinski
<a href="#">FNC10-842</a>	Big Bluestem Management Using High Density/Short Duration Grazing	\$5,907	Leslea Hodgson Root Prairie Galloways
<a href="#">FNC10-807</a>	Bio char Kiln Fabrication and Operation	\$3,893	John Topic self
<a href="#">FNC10-838</a>	Control of Buckthorn with Hogs, Cutting Feed Costs with Food Waste	\$5,979.08	Nancy Lunzer Bear Street Ranch LLC
<a href="#">FNC10-803</a>	Mobile Farmers' Market	\$6,000	Diane Wilson Peta Wakan Tipi
<a href="#">FNC10-840</a>	Scaling Up to Meet Market Demand for Local, Organic Broccoli	\$16,932	Linda Halley Chris Blanchard Rock Spring Farm Aaron Blyth Big River Farms
<a href="#">FNC10-831</a>	Small-Scale Oilseed Processing: Evaluating Edible Camelina Oil for its Market Demand and Value-Added Opportunities	\$5,999.81	Phillip Batalden Kathleen Batalden Smith Omega Maiden Oils
<a href="#">FNC09-758</a>	Comparing the pasture restoration potential and financial viability of Cornish Cross vs. Red Broilers, in combination with heritage pastured hogs, for a small pastured poultry operation in NE Minnesota	\$3,867	Cindy Hale Clover Valley Farms, LLC Jeff Hall Clover Valley Farms, LLC
<a href="#">FNC09-747</a>	Creating a Sustainable Year-Round Greenhouse Cropping System Using	\$6,000	Karen Weiss



	Straw-bale Culture and LED Lighting		
<a href="#">FNC09-760</a>	Examine the benefits of winter kill Sorghum-Sudan grass (Sudex) as a weed suppressing mulch in tomato production	\$3,650	Katie Cramer Cramer Organics
<a href="#">FNC09-749</a>	Growing Blackberries Organically under High Tunnels for Winter Protection and Increased Production	\$5,100	Craig Gundacker Erik Gundacker Scenic Valley Farm
<a href="#">FNC09-777</a>	How does the rotational grazing of poultry on cover crop land on a vegetable farm affect soil health and economic success?	\$6,000	Mark Boen Bluebird Gardens
<a href="#">FNC09-762</a>	Kenyan Women's Community Sustainable Farming (CSF) Project: Cultivation of Mwangani (Cleome gynandra)	\$17,286.50	Elizabeth Kackman Thomas Kackman
<a href="#">FNC09-788</a>	White Earth Goat Maanadikoshensag Project	\$18,000	Winona LaDuke White Earth Land Recovery Project
<a href="#">FNC08-722</a>	Build it and they will come: Integrating beneficial beetle habitat with organic growing systems economically	\$6,000	Juan Carlos Cervantes Celestial Harvest, Inc
<a href="#">FNC08-704</a>	City Backyard Farming	\$6,000	Xe Susane Moua
<a href="#">FNC08-723</a>	Increasing Safety and Sustainability and Reducing the Use of Pesticides and Other Farm Chemicals Among Hmong Farmers	\$18,000	Ly Vang
<a href="#">FNC08-727</a>	Indoor cultivation of mushrooms to diversify farm and test local markets	\$3,699.10	Inga Haugen
<a href="#">FNC08-740</a>	Native Youth Teach Healthy Diets (Learning to Love Vegetables!)	\$5,952	Diane Wilson Peta Wakan Tipi
<a href="#">FNC08-734</a>	The Minnesota African Women Sustainable Backyard Farming Project	\$17,981	Siona Nchotu
<a href="#">FNC07-694</a>	Nutritional Values of Hmong Plants and Herbs	\$6,000	Mhonpaj Lee
<a href="#">FNC07-686</a>	Supporting the Environment and Healthy Food for Latino Markets	\$15,410	Alma Edelia Ramos Margarito Ramos
<a href="#">FNC07-664</a>	Utilizing Warm-Season Grasses in Forage Production in a Changing Climate	\$5,700	Jerry Tourtillot
<a href="#">FNC07-677</a>	Winter Plant Protection On Blueberries in Northern Minnesota	\$3,996	Al Ringer
<a href="#">FNC06-605</a>	Equine Forestry: Promotion of a Low-	\$6,000	Tim Carroll

	Impact Forest Harvesting Method		Cedar River Horse Logging
<a href="#">FNC06-643</a>	Impacts of Aeration Incorporation of Turkey Litter on the Yield and Quality of Alfalfa Production in Northern Minnesota	\$5,902	Jerry Tourtillott
<a href="#">FNC06-642</a>	Improved Productivity in Winter Greenhouse	\$1,565	Carol Ford
<a href="#">FNC06-610</a>	Lake Superior Chapter SFA Farm Beginnings Program	\$9,155	Cree Bradley Lake Superior Chapter, Sustainable Farming Assoc Mark Thell Lake Superior Chapter Sustainable Farming Assoc
<a href="#">FNC05-563</a>	Determining the Relationship Between and Economics of Consistent Rate of Gain and Intermuscular Fat (high in CLA & Omega 3)	\$17,195	Don Struxness
<a href="#">FNC05-569</a>	Dream of Wild Health Indigenous Corn Propagation Program	\$6,000	Sally Auger
<a href="#">FNC04-515</a>	Advanced Techniques for Sustained Marketing Success of Team Farmers	\$17,146	Constance Karstens
<a href="#">FNC04-516</a>	Commercial Production of Osmia Lignaria in Minnesota	\$6,000	Eric Mader
<a href="#">FNC04-511</a>	Connecting Meat Goat Producers to Existing Ethnic Consumers	\$5,000	Bob Hassett
<a href="#">FNC04-498</a>	Decorative Woody Florals Learning Circle	\$9,454	Michele Skogrand
<a href="#">FNC04-506</a>	Designing and Validating Plant Communities/Cropping Systems for Multiple Benefits	\$13,733	Paula Westmoreland
<a href="#">FNC04-529</a>	Evaluation of Raspberries Grown in High Tunnels for a Northern Climate	\$6,000	Lois Hoffbauer
<a href="#">FNC04-546</a>	Expanding Consumer Interest & Home Gardeners' Use of Heritage Tomato	\$2,181	Ardie Eckardt
<a href="#">FNC04-501</a>	How Fall Cutting Versus Fall Residue Affects Yield and Quality of Alfalfa the Next Year	\$5,600	Fred Keller
<a href="#">FNC04-539</a>	Improved Management of Rye Cover Crops for Organic Soybean Production	\$16,150	Don DeWeerd
<a href="#">FNC04-544</a>	Sustainable Small Farm Promotion Using Novel Market Stand	\$3,960	Sean Albiston Blue Roof Organics

<a href="#">FNC03-454</a>	Adding Value to Honey Products Through the use of Melissopalynology Techniques	\$6,000	Brian Fredericksen Ames Farm
<a href="#">FNC03-483</a>	Developing a Saskatoon Berry Market in the Upper Midwest	\$5,310	Patricia Altrichter
<a href="#">FNC03-480</a>	Dream of Wild Health, a Project of Peta Wakan Tipi	\$6,000	Sally Auger
<a href="#">FNC03-472</a>	Restoration of Traditional Anishinaabeg Agricultural Practices, Utilizing the Three Sisters Gardening Method	\$6,000	Winona LaDuke White Earth Land Recovery Project
<a href="#">FNC03-478</a>	Using a Vertical Shoot Position Trellis and Micro-Nutrients to Reduce Labor and Increase Fruit Set	\$2,502	Tim Gieseke Minnesota Project
<a href="#">FNC03-487</a>	Yield and Feeding Value of Annual Crops Planted for Emergency Forage in Minnesota	\$5,150	David Sjostrom
<a href="#">FNC02-438</a>	Compost Heat for Group Nursing	\$6,000	Dennis Rabe
<a href="#">FNC02-429</a>	Producing High Levels of CLA in Grassfed Beef in an Area with a Short Growing Season	\$17,908	Don Struxness
<a href="#">FNC02-434</a>	Promoting Healthy Maple Forests	\$9,545	Bruce Savage
<a href="#">FNC02-396</a>	Testing the Use of a Modified Crop Rotation System to Control Colorado Potato Beetle	\$6,000	Janaki Fisher-Merritt
<a href="#">FNC02-415</a>	Utilizing Water Conservation and Infiltration for Black Walnut Production	\$2,645	Tim Gieseke Minnesota Project
<a href="#">FNC01-379</a>	Comparison of Winter Farrowing Techniques on 4 Farms for High Value Pork Production for Niman Ranch	\$14,481	Dave Serfling
<a href="#">FNC01-347</a>	Four Season Production in a Northern Climate Greenhouse	\$3,896	Charles Knierim
<a href="#">FNC01-358</a>	Marketing Sustainable Wood Products	\$14,850	Tom McMillin
<a href="#">FNC01-362</a>	Organic Hog Production Using Several Organic Feed Rations as Compared with Conventional Hog Production	\$11,034	Warren Roberts
<a href="#">FNC01-363</a>	Reducing Heating Costs in Greenhouses	\$14,991	Roger Peterson

<a href="#">FNC01-377</a>	Sustainable Straw Based Farrowing System Modified After the Swedish Model	\$4,973	Paul Sobocinski
<a href="#">FNC01-378</a>	Utilizing Bats to Control Agricultural Pests	\$2,600	Joe Lancaster Wilder Forest Farm
<a href="#">FNC01-337</a>	Zumbro River Watershed Cover Crop Project	\$5,000	Andy Hart
<a href="#">FNC00-296</a>	Dairy Marketing Options	\$9,900	Mike Salber
<a href="#">FNC00-300</a>	Dream of Wild Health Network	\$5,000	Sally Auger
<a href="#">FNC00-312</a>	Evaluation of Christmas Tree Varieties for Northern MN	\$4,962	Jesse Hoffbauer
<a href="#">FNC00-290</a>	Expanding, Enhancing and Diversifying Sales with Team Farmer Marketing	\$14,850	Constance Karstens
<a href="#">FNC00-301</a>	Heritage Maize Project	\$14,997	Frank J Kutka
<a href="#">FNC00-324</a>	Promoting and Distributing PastureLand Products	\$10,000	Dan French
<a href="#">FNC00-303</a>	Specialty Poultry and Egg Marketing to Asian Markets in Minneapolis/St. Paul Metro Area for the B/S Poultry Cooperative	\$5,000	Chong X Vang
<a href="#">FNC99-253</a>	Farm on Wheels, Marketing to the Consumer	\$5,000	Linda Noble
<a href="#">FNC99-288</a>	Growing Various Species of Angelica as a Forest Crop in the Midwest	\$4,971	Rose Haywood
<a href="#">FNC99-267</a>	Integration of Intensive Sheep Grazing with a Vineyard/Orchard Operation	\$5,000	Michael Burke
<a href="#">FNC99-254</a>	South Central Minnesota Sustainable Farming Association Marketing Club	\$1,595	Nancy Aspelund
<a href="#">FNC99-282</a>	Using a Confinement Building as a Deep-bedded Building Based on Hoop House Principles	\$4,700	Dwight Ault
<a href="#">FNC99-256</a>	Year-Round Renewably Heated and Powered Greenhouse	\$4,997	Steven Schwen

<a href="#">FNC98-221</a>	Creating and Expanding Direct Markets for Sustainable Products	\$5,000	Dennis Rabe
<a href="#">FNC98-210</a>	Keep the Cows in the Corn, Even during the Winter Storms	\$4,997	Don Struxness
<a href="#">FNC98-234</a>	Low Environmental Impact Establishment of Hybrid Poplar Plantation	\$2,790	Michael Nohner
<a href="#">FNC98-208</a>	Sustainable Hog Production in Old Farm Buildings	\$4,770	Dave Serfling
<a href="#">FNC97-177</a>	Cattle, Grass and Streams: Can They Work Together as a Sustainable Ecosystem?	\$4,690	Ralph Lentz
<a href="#">FNC97-194</a>	Community-based Marketing with the World Wide Web	\$9,992	LeeAnn VanDerPol
<a href="#">FNC97-169</a>	Development of Cultivation Equipment for Diversified Vegetable Production	\$3,194	Joe Lancaster Wilder Forest Farm
<a href="#">FNC97-190</a>	Diversifying a Small Crop Farm with Hogs, Poultry, Apples and Plums	\$1,536	Nancy Aspelund
<a href="#">FNC97-165</a>	Feeding the Saints	\$9,650	Tim King
<a href="#">FNC97-182</a>	Increased Pasture Profits through South African Dorper Sheep	\$1,790	Michael Burke
<a href="#">FNC97-178</a>	Native Minnesota Medicinal Production Feasibility Study	\$5,000	Renne Soberg
<a href="#">FNC96-158</a>	Hog Production in an Existing Facility Using Swedish Techniques	\$5,000	Lyle Haroldson
<a href="#">FNC96-145</a>	Pipestone Lamb Marketing Project	\$10,000	Michael Fruechte
<a href="#">FNC96-156</a>	Prairie Farmers Co-op Producer-owned Livestock Processing and Marketing	\$10,000	Dennis Timmerman
<a href="#">FNC96-147</a>	Sheep Offal Composting Project	\$9,580	John Essame
<a href="#">FNC95-102</a>	Developing Weed Control Methods for Organic Raspberry Production	\$4,700	Kevin Edberg
<a href="#">FNC95-098</a>	Harvesting Wildflower Seed Crops from	\$1,819	Frank J Kutka

## Marginal Land

<a href="#">FNC95-091</a>	Living Mulches in Minnesota Wheat	\$1,373	Dave Birong
<a href="#">FNC95-089</a>	Winter Farrowing in a Low-input System	\$3,991	James Van Der Pol
<a href="#">FNC94-078</a>	Incorporating Rotational Grazing into Conventional Dairy Enterprise	\$4,961	Randy Meyer
<a href="#">FNC94-088</a>	Multi-Phase Swedish-Style Hog Structure with Attached Pastures	\$3,095	Nolan Jungclaus
<a href="#">FNC94-072</a>	Wild Flowers on Marginal Lands	\$3,775	Frank J Kutka
<a href="#">FNC93-045</a>	Comparing Composted and Raw Manure in Crop Production	\$1,600	Rich Vander Ziel
<a href="#">FNC93-051</a>	CRP Acres -- Pastures or Crop Production	\$5,000	Charles Cornillie (deceased)
<a href="#">FNC93-053</a>	Establishment of Warm Season Grasses and Interseeding Legumes into Cool Season Pastures	\$3,500	Ted Rolling
<a href="#">FNC93-033</a>	Evaluating Productivity of Various Pasture Species by Utilizing Comsec Pasture Gauge and Bulk Density Plates	\$3,920	Dan French
<a href="#">FNC93-034</a>	Hazelnut Windbreak Adds Diversity	\$4,125	Phillip Brase
<a href="#">FNC92-007</a>	Weed Control and Fertility Comparisons in Solid Seeded and 30" Row Soybeans	\$4,974	David Michaelson River GLO Farms
<a href="#">FNC92-013</a>	Weed Control in Sugar Beet Production Utilizing Ridge Tillage and Cover Crops	\$5,000	Alan Brutlag

**GRADUATE STUDENT GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE support</b>	<b>Project Leaders</b>
<a href="#">GNC16-224</a>	Agroecosystem Impact of Relay and Double Cropping winter Annual Oilseeds in Corn and Soybean	\$11,902	Cody Hoerning University of Minnesota
<a href="#">GNC16-232</a>	Cover Crop Cold Tolerance for High Tunnels	\$10,875	Elizabeth Perkus University of Minnesota
<a href="#">GNC16-218</a>	Determination of Decomposition Rates of Cover Crop Residues and Their Nutrient Release Characteristics	\$11,906	Sabrina Badger University of Minnesota, Department of Agronomy and Plant Genetics

<a href="#">GNC16-229</a>	Maximizing Pollinator Protection and Natural Pest Suppression in Minnesota Fruit and Vegetable Crops	\$12,000	Eric Middleton University of Minnesota
<a href="#">GNC15-214</a>	Ecologically-based Pest Management Strategies for Imported Cabbageworm in Broccoli	\$9,394	Aimee Talbot University of Minnesota
<a href="#">GNC15-213</a>	Evaluating Alternative Host Plant Use of Spotted Wing Drosophila, <i>Drosophila suzukii</i>	\$10,000	Grace Sward University of Minnesota
<a href="#">GNC15-215</a>	Evaluating Sustainable Alternatives of Rootstock Selections in Grafted Tomatoes to Enhance Yield Potential in High Tunnel and Field Production	\$9,900	Richard Traugott UMN
<a href="#">GNC15-204</a>	Identification of Native Minnesota/Midwestern U.S. Hop ( <i>Humulus lupulus</i> L.) Communities as a Resource for Novel Disease Resistance Traits	\$9,808	Joshua Havill Univeristy of Minnesota
<a href="#">GNC14-187</a>	Improving Soil Health and Microbial Activity through Zone Tillage and Innovative Cover Cropping Strategies	\$9,995	Peyton Ginakes University of Minnesota
<a href="#">GNC13-169</a>	Assessing Nitrogen and Carbon Pools in a Perennial Biomass Alley Cropping System in Minnesota U.S.A.	\$9,719	Joshua Gamble University of Minnesota
<a href="#">GNC13-170</a>	Integrating Host-Plant Resistance and Insecticides for Sustainable Soybean Aphid Management	\$9,938	Anthony Hanson University of Minnesota
<a href="#">GNC12-153</a>	Benefits of Propolis to Honey Bee Health and Immunity	\$9,900	Renata Borba University of Minnesota
<a href="#">GNC12-150</a>	Effect of Growth Meat Quality, and Profitability of Organically Raised Dairy-Beef Steers	\$9,445	Elizabeth Bjorklund University of Minnesota Dr. Bradley Heins University of Minnesota
<a href="#">GNC12-159</a>	Improving Perennial Ryegrass Seed Production in Northern Minnesota: Developing Metabolomics-Assisted Selection Techniques for Crown and Stem Rust Resistant Cultivar Development	\$9,997	Eric Koeritz University of Minnesota
<a href="#">GNC12-152</a>	Integrating Sustainable Agriculture with K-12 Curriculum through School Garden/Orchards: a Pre-Service Teacher Training	\$9,987	Brian Bluhm University of Minnesota Duluth
<a href="#">GNC10-137</a>	Profiling Microbial Communities in Soils from Organic, Sustainable, and Conventional Cropping Systems	\$9,999	Adria Fernandez University of Minnesota
<a href="#">GNC10-131</a>	Reducing Manure and N Fertilizer Inputs in Alfalfa-Corn Rotations	\$9,919	Matt Yost University of Minnesota
<a href="#">GNC09-104</a>	Reducing Pre-weaning Mortality in Loose-Housed Farrowing Systems	\$9,980	Christina Phillips University of Minnesota



<a href="#">GNC09-102</a>	The effects of Nosema ceranae infection on honey bee health and Colony Collapse Disorder	\$10,000	Michael Goblirsch University of Minnesota - Department of Entomology
<a href="#">GNC07-083</a>	Determination of volatile compounds that elicit removal of diseased brood by hygienic honey bees.	\$10,000	Marla Spivak University of Minnesota Jodi Swanson University of Minnesota
<a href="#">GNC07-075</a>	Evaluating Rye Germplasm for Use as a Cover Crop in the Upper Midwest	\$9,898	Michael Kantar University of Minnesota
<a href="#">GNC06-059</a>	Analysis of Travel Patterns of Bison and Cattle on Native Nebraska Sandhills Rangeland	\$9,807	Andrew Cassiday Chadron State College Charles Butterfield Chadron State College
<a href="#">GNC06-071</a>	Breeding and Development of Perennial Sunflower and Perennial Flax Varieties for Low-Input Agriculture	\$9,700	Brent Hulke University of Minnesota
<a href="#">GNC06-072</a>	Comparison of Use and Chemical Composition of Propolis Collected by U.S. Honey Bees	\$10,000	Michael Simone University of Minnesota, Dept Ecol., Evol. & Behav
<a href="#">GNC05-042</a>	Nitrogen Fertilization for Hybrid Hazelnuts in the Upper Midwest	\$9,589	Dr.Loïs Braun Research Associate
<a href="#">GNC05-054</a>	Use of green manures to reduce inoculum production of Fusarium graminearum on wheat residues	\$10,000	Carlos Perez University of Minnesota
<a href="#">GNC04-034</a>	The title of the project: From Beneficial Insect to Economic Pest: a Sustainable Management to the Asian Lady Beetle in Midwestern Grapes	\$9,633	William Hutchison Univeristy of Minnesota Tederson Galvan University of Minnesota
<a href="#">GNC03-023</a>	Comparing Vesicular-Arbuscular Mycorrhizal Colonization in Conventional versus Organic Strawberry Production Systems	\$10,000	Marjorie Ross University of Minnesota
<a href="#">GNC03-024</a>	Systems Evaluation of the Components of Reduced Input Dairy Farms	\$9,620	Ebener Ballinger University of Minnesota
<a href="#">GNC02-004</a>	Reproductive Success and Survival of Grassland Passerines in an Agriculture Landscape: the Contribution of Alternate Grazing Systems to Bird Population Viability	\$10,000	Melissa Driscoll University of Minnesota
<a href="#">GNC02-005</a>	The Effect of Crop-Weed Gene Flow on the Competitive Ability of Weedy Sunflower	\$10,000	Kristin L Mercer University of Minnesota

#### ON-FARM RESEARCH/PARTNER GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">ONC16-016</a>	Building Capacity via Peer-to-Peer Food Safety Education with Hmong-American Fruit and Vegetable Farmers	\$29,897	Annalisa Hultberg University of Minnesota

<a href="#">ONC16-019</a>	Causes of Honey Bee Queen Failure in Commercial Beekeeping Operations	\$30,000	Marla Spivak University of Minnesota
<a href="#">ONC16-015</a>	On Farm Research to Quantify the Value of Cover Crops for Nutrient Crediting	\$30,000	Spencer Herbert Minnesota Department of Agriculture
<a href="#">ONC15-003</a>	Maximizing Pollinator Services from Native Bees	\$29,964	Dr.Karl Foord University of Minnesota
<a href="#">ONC15-009</a>	Shifting Local Trends with Cover Crops and Short Season Corn	\$29,870	Robin Moore Land Stewardship Project

#### YOUTH EDUCATOR GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">YENC15-085</a>	Big River Farms Youth & Family Engagement Program - a Project of the Minnesota Food Association	\$2,000	Laura Hedeem Minnesota Food Association
<a href="#">YENC12-055</a>	Community Youth Education Program through Stone's Throw Urban Farm	\$1,986.74	Anna French
<a href="#">YENC09-021</a>	Intergenerational Farm Experience	\$1,972	Chianeng Thao Association for the Advancement of Hmong Women in Minnesota Ly Vang Association for the Advancement of Hmong Women in Mnnnesota
<a href="#">YENC08-001</a>	Seed to Seed: Riverway Learning Community Gardening Project	\$2,000	Jacqueline K M Paulsen Riverway Learning Community

#### YOUTH GRANTS

Project #	Project Title	SARE support	Project Leaders
<a href="#">YNC10-062</a>	Learning to Spin: Turning Wool into Yarn	\$393.90	Nelson Morlock
<a href="#">YNC09-039</a>	Beneficial Bees from a Teenager's Perspective	\$393.74	Amanda King
<a href="#">YNC09-045</a>	Moving Midget White Turkeys off the Critical List	\$400	Joshua King
<a href="#">YNC09-035</a>	RecROOTing Seniors to Sprout	\$397.75	Sarah Anderson
<a href="#">YNC08-016</a>	Eat Healthy, Garden to Eat - Eat to Live	\$400	Annemarie Esther Keller
<a href="#">YNC08-022</a>	Goat Birthing Process and Meat Goat Grooming Videos	\$400	Tia Muller

<a href="#">YNC08-014</a>	Maple Syrup Making	\$221.79	Michaela Handke
<a href="#">YNC08-002</a>	Utilizing A Barrel of Space	\$400	Dillon Boen Bluebird Gardens

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**Total funding from the USDA SARE program to  
Minnesota  
\$9,861,080**

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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).

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