

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 \$397 million to more than 8,689 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

SARE: Advancing the Frontier of Sustainable Agriculture in...

Indiana

Project Highlight: *Online Budgeting Tools for Small-Scale Livestock Producers*

"I grew up on this farm and had no desire to be a farmer," Liz Brownlee says of the 250-acre property near Crothersville, Ind., where her parents spent 15 years raising beef cattle, corn, soybeans, and other crops. They got out of farming during the 1980s farm crisis and instead began renting out their land.

Eventually, that feeling changed for Brownlee and her husband Nate, as they came to see farming as the ideal way to combine a passion for food with an ethic of environmental stewardship. After spending five years working on farms in the Northeast, the Brownlees came home in 2013. They started Nightfall Farm on the family property, where they raise hogs, turkeys, chickens, and sheep using rotational grazing practices to sustain the land. They sell meat and eggs through a 50-share CSA, at farmers' markets, and directly to area chefs. In 2018, they teamed up with Indiana University specialists and another livestock farm in the area to conduct a SARE-supported feasibility study on creating a small-scale butcher shop capable of serving producers who focus on direct sales.

"Our feasibility study confirmed a true need for a farmer-focused butcher shop(s) and that a version of this business could be economically viable," said Liz Brownlee. "Thanks to our SARE project, we have a floor plan, an equipment list, a cash flow analysis, a business plan, an understanding of regulatory requirements, and contacts nationwide. We also learned what questions to ask and how a group might need to learn and process together if they want to open a butcher shop."

Still, their ambitions go beyond their pastures. Their next primary task is to decide who wants to open a small-scale butcher shop and how. They are now considering things like zoning approval and potential grants and loans. Compiling and sharing the business planning documents from their feasibility study will serve as a resource for other farmers with similar needs. In addition, the Brownlees are founding members and officers of the Hoosier Young Farmers Coalition, a state chapter of the National Young Farmers Coalition.

For more information on this project, see sare.org/projects, and search for project number FNC18-1115.

SARE in Indiana

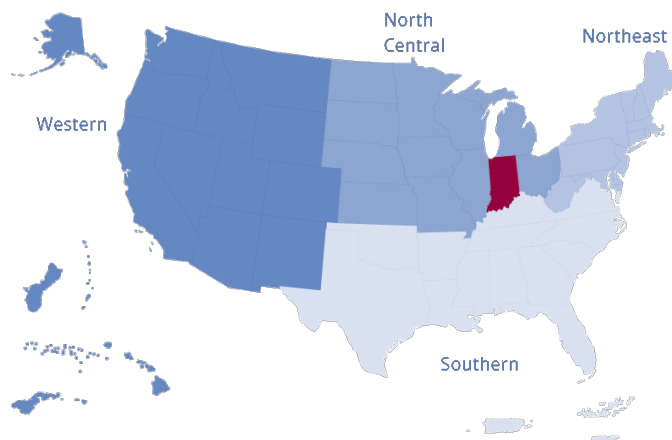
northcentral.sare.org/state-programs/indiana

\$3,292,442
in total funding

68 grant project

(since 1988)

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



SARE in Indiana

Grants awarded 2019-2024

Total awards: **68 grants**

- 25 Farmer/Rancher
- 7 Research and Education
- 7 Professional Development Program
- 8 On Farm Research/Partnership
- 13 Graduate Student
- 8 Youth Educator

Total funding: **\$3,292,442**

- \$393,011 Farmer/Rancher
- \$1,731,318 Research and Education
- \$635,730 Professional Development Program
- \$308,117 On Farm Research/Partnership
- \$186,461 Graduate Student
- \$37,805 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:

17,547 farmers participated in a SARE-funded project

2,216 farmers reported a change in knowledge, awareness, skills or attitude

986 farmers changed a practice



Learn about local impacts at:
northcentral.sare.org/state-programs/indiana

Contact Your SARE State Coordinator

SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit northcentral.sare.org/state-pages/indiana to learn more.

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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.

For detailed information on SARE projects, go to
www.SARE.org



AGRICULTURE PROJECTS FUNDED IN INDIANA

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

Indiana has been awarded \$7,108,157 grants to support 196 projects, including but not limited to, 28 research and/or education projects, 15 professional development projects and 89 producer-led projects. Indiana has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
LNC23-481	Exploring Underutilized Weed Management Methods on Indiana Small Farms Through On-Farm Research, Community Learning, and Farmer-to-Farmer Education	\$249,669	Dr.Stephen Meyers Purdue University
LNC23-486	Development of species-specific yeast RNAi attractive targeted sugar baits for spotted wing Drosophila control	\$249,928	Dr.Molly Duman Scheel The Trustees of Indiana University
LNC22-470	Urban Farming Entrepreneurship Program: Providing minority youth entrepreneurship training to increase employment and food access	\$245,116	Kathryn Orvis Purdue University
LNC21-454	Enhance Strawberry Production in North Central Region through Tunnel-based Systems	\$250,000	Wenjing Guan Purdue University
LNC20-438	Improving two spotted spider mite management in high tunnel cucumber production	\$249,919	Dr.Laura Ingwell Purdue University
LNC20-443	Identifying and Expanding Integrated Disease Management Resources to include Organic Grains in Support of Organic and Transitional North Central Farms	\$249,984	Dr.Darcy Telenko Purdue University

LNC20-444	Participatory Farmer Monitoring on Nitrate Loss: Using Farm-Scale Data to Improve Nutrient Management and Water Quality	\$236,702	Dr.Landon Yoder Indiana University
LNC18-399	Increasing the Sustainable Production and Access of Fresh Produce in Urban Areas of NW Indiana	\$199,676	Dr.Tamara Benjamin Purdue University
LNC18-408	Biological Approaches to Sustainable Mint Production	\$199,994	Dr.Petrus Langenhoven Purdue University
LNC17-390	Improving Seedless Cucumber Production to Diversify High Tunnel Crops in the North Central Region	\$200,000	Wenjing Guan Purdue University
LNC17-397	Organic Transition and Certification: Supporting Indiana Grain Farmers' Capacity to Meet Market Demand	\$194,663	Dr.Tamara Benjamin Purdue University Michael O'Donnell J F Farms / Living Prairie Family Farms
LNC16-377	Transitioning farm and ranch land from one family to another: Evaluating new strategies for profitable transfers and sustainable agriculture partnerships	\$199,566	Dr.James Farmer Indiana University Dr.Julia Valliant Indiana University
LNC15-374	Economic Viability of Shared-Use Kitchens in the North Central Region	\$135,819	Dr.Rhonda Phillips Purdue University Jodee Ellett Purdue University Cooperative Extension Service
LNC14-359	Evaluating the Impact of Biochar on Soil Fertility and Crop Productivity through Farmer Participatory Research and a Student Internship Program	\$194,732	Kevin Gibson Purdue University
LNC08-295	Improving honey Bee Health and Pollination Sustainability with Mite-Resistant Bees	\$117,861	Dr.Greg Hunt Purdue University
LNC06-266	Research and Education Project, Region: North Central. The management of watermelon vine decline through sustainable management practices	\$98,500	Dr.dan Egel Purdue University

LNC03-225	Microbial Processes Underlying the Natural Weed Suppressiveness of Soils	\$103,623	Steven Hallet Purdue University
LNC02-220	Weed Community Shifts and Management Options in the Conversion to Organic Production Systems	\$93,375	Kevin Gibson Purdue University
LNC99-154	Optimum Genetic Selection of Cattle for Pasture-Based Dairies	\$55,881	Michael Schutz Purdue University, Dept of Animal Sciences
LNC98-131	Traveling Food Processing/Educational Trailer	\$41,138	Susan Houghton Michigan Organic Food and Farm Alliance
LNC98-140	Soil Quality Improvement with Cover Crop Mixtures	\$93,256	Kladivko Eileen Purdue University
LNP98-005	New Crops - New Uses: Biodiversity and Agricultural Sustainability	\$9,950	David Dierig AAIC-USDA-ARS
LNC97-122	Development of Market Infrastructure to Support Local and Regional Food Systems	\$86,200	Steve Bonney Sustainable Earth Inc
LNC96-095	Multiple-Use Borderlands: An Educational and Demonstration Project	\$83,832	Bruno Moser Dept of Horticulture and Landscape Architecture, Purdue University
LNC96-100	Evaluation of Composted Manure as a Growth and Delivery Substrate for the Biological Weed Control Agent <i>Gliocladium virens</i> in Sustainable Vegetable Production Systems	\$70,000	Stephen Weller Dept of Horticulture and Landscape Architecture, Purdue University
LNC94-072	Sustaining Row Crop and Fine Hardwood Productivity through Alley Cropping: On-Farm Demonstration, Research, and Economic Evaluation of an Integrated System	\$123,948	Andrew Gillespie Purdue University
LNC90-029	Sustainable Production Systems for Vegetables	\$78,321	Stephen Weller Dept of Horticulture and Landscape Architecture, Purdue University
LNC89-024	Crop Rotation, Legume Intercropping, and Cultural Pest Control as Substitutes for Purchased Inputs in a Cash Grain Cropping System	\$53,000	David Mengel Purdue University

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
ENC23-226	Capacity Building for Cover Crop Educators in the Midwest	\$120,000	Anna Morrow Purdue University
ENC22-213	Leadership for Midwestern Watersheds	\$89,607	Craig Ficenece Sand County Foundation
ENC22-218	In Service to Beginning Farmer/Rancher Land Access: An Expanded and Independent Community of Practice for Managers of Land Access Policy Incentives	\$89,958	Dr. Julia Valliant Indiana University
ENC21-199	Building Institutional Support to Increase Farm Viability of Indiana's Beginning Farmers	\$89,046	Amy Thompson Purdue Extension Henry Quesada
ENC21-205	The Urban Farming Soil Life Short Course	\$67,160	Eric Mader The Xerces Society
ENC20-193	Enhancing Cover Crop Training in the North Central Region	\$90,000	Kladienko Eileen Purdue University Anna Morrow Purdue University
ENC19-183	Increasing Extension Expertise to Assist Agriculture Adaptation to a Changing Climate	\$89,959	Hans Schmitz Purdue Extension
ENC18-175	Enhancing professional development opportunities to improve technical capacity of Indiana conservation delivery professionals	\$74,959	Sue Tull Conservation Tech Info center
ENC17-159	Midwest Cover Crops Council - Cover Crop Decision Tool	\$74,680	Kladienko Eileen Purdue University Anna Morrow Purdue University
ENC16-152	Soil Health Education Resources for Teachers	\$72,701	Dr. Natalie Carroll Purdue University
ENC08-106	Indiana High Tunnel Initiative: Developing Extension-Farmer Partnerships for Education	\$74,982	Amy Thompson Purdue Extension
ENC04-079	Indiana Agritourism Training Initiative	\$70,000	Jerry Nelson Purdue University Cooperative Extension Service

ENC97-021	Combining Holistic Resource Management and Strategic Planning to Improve Farm Resource Planning	\$9,500	Craig Dobbins Dept of Agricultural Economics, Purdue University
ENC95-007	Experiential Co-Learning for Professional Development in Sustainable Agriculture	\$60,400	Craig Dobbins Dept of Agricultural Economics, Purdue University
ENP95-004	III National Symposium: New Opportunities, New Technologies	\$8,000	Jules Janick Purdue Univ. Center for New Crops & Plant Production

FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FNC24-1414	Is Goat Brush Clearing a viable business for small farmers in Central Indiana?	\$14,995	Sylvester Friend Prairie Hills Farm LLC
FNC24-1423	A Comparison of Weed Control Strategies in Christmas Tree Plantations Using Mechanical and Chemical Methods or Shropshire Sheep	\$15,000	Elise Koning Sylvanmore
FNC24-1427	Empowering the Community with Education to Restore Balance to Life with Regenerative Urban Farming and the Ma'at Urban Farm Network™	\$14,995	STEBO MA'AT MA'AT URBAN AGRICULTURE & INDUSTRIES LLC
FNC24-1434	Integrating Sheep Wool Pellets with Specialty Crop Systems to Enhance Soil Health, Water Storage, Carbon Sequestration, and Plant Production	\$17,736	Whitney Schlegel Marble Hill Farm
FNC23-1372	Advancing black walnut syrup production through research and report on optimal tapping practices and promotion of findings at a field day.	\$14,808	Jonathan Elrod Blue Temoest Holdings, LLC, d/b/a Rusted Flatbed Farm
FNC23-1374	Utilizing Microscopic Testing Protocols to analyze our soil and compost to make the correct actions to improve our soil quality.	\$30,000	Glenda George Baby Greens Family Farm
FNC22-1324	Utilization of Worm Tea on Field Scale Trials for Soil Remediation	\$10,370	Stephanie Duncan Duncan's Worm Farm
FNC22-1334	Truffle-Hardwood Orchard Development: A New Agro-Forestry Product for Indiana	\$15,000	Mimi Kokoska Koko Earth Farms, LLC

FNC22-1337	Inspirational Three Sisters Mounds Sunshine Experiment with Sunflowers and Community Seed Distribution in Evansville, Indiana	\$15,000	Lindsey Krantz Catalpa Tree LLC
FNC21-1260	Goats and Pigs on Pasture, a Comparison of How the Two Types of Animals Contribute to Soil Fertility.	\$8,969	Henry Guyver Little Red Henry Farm Products LLC
FNC21-1262	Leveraging Biodiversity to Improve Profitability on a Small-scale Vegetable Farm	\$17,425	Ann Carnes Wild Pansy Farm
FNC21-1268	To evaluate the use of SuperDFM on the improving of the winter survival rate of honey bees.	\$25,320	James Steven Doty ECIBA
FNC21-1271	Conversion of Row Crop Acreage to Beef Cattle Pasture Using Sorghum-Sudangrass	\$9,000	Dave Fischer Fischer Farms
FNC21-1295	Heritage Corn: Planting, Challenges and Educating from the Family Plot Perspective	\$26,993	Zuleyja Prieto Zuleyja Prieto
FNC20-1214	Utilizing living mulch in organic corn production	\$7,862	Jared Crum Rick and Peggy Crum
FNC20-1220	Near Northeast Community Supported Agriculture Program	\$7,525	Danielle Guerin Soul Food Project
FNC20-1241	Revisiting Farm Diversification through Trout and Walleye Food Fish Production	\$8,932	Dr.Carolyn Orr Strawridge Farm
FNC20-1244	Low Stress Livestock Management Hands-On Skill Building workshops	\$25,275	Denice Rackley Clearfield Stockdogs and Lamb
FNC20-1245	Creative Solutions to Reverse Indianapolis' Healthy Food Accessibility Trends	\$23,648	Joyce Randolph The Elephant Gardens
FNC20-1252	Understanding the willingness of farms to utilize lung scanning in their cattle operations	\$26,745	Tabitha Steckler Hurst Hunley Creek Heifer Farm

FNC19-1159	Holistic Forestry, Vegetables, and Small Livestock Production that Eradicates Invasive Species and Exposes Consumers to Sustainable Agriculture.	\$8,233	Nick Carter Mud Creek Farm
FNC19-1168	A Comprehensive Exploration Of Targeted Grazing With Goats	\$8,943	Kaitlin Hossom Second Planet Farmstead
FNC19-1169	Legacy's United Farmers, Communities and Urban Food deserts	\$26,827	john jamerson Legacy Taste of the Garden LLC
FNC19-1180	No Waste Mushroom Cultivation: Viability Comparison of Spent Grain and Coffee Grounds for Small-scale and Urban farmers	\$5,445	Lauren E McCalister Three Flock Farm
FNC19-1196	Varroa mite and Small Hive Beetle management: Single brood chamber hive versus double brood chamber hive	\$7,965	Mikael Thompson Thompson's Prairie Honey
FNC18-1111	Improving Worker Welfare and Grower Profitability in Small-scale Strawberry Production	\$22,474	Richard Barnes Tanglewood Berry Farm
FNC18-1115	Planning for a Farmer-to-Farmer Butcher Shop	\$15,000	Liz Brownlee Nightfall Farm
FNC18-1116	Increasing yields, plant vigor and soil health with the use of woodchips	\$7,493	Karen Carlisle small farm
FNC18-1117	Pasture-Crop Tests without Chemical Termination	\$3,300	Timothy Carter Honey Creek Farm
FNC18-1120	Creating a Micro Farm: Using Everything, Wasting Nothing, and Inspiring Young People to Do the Same	\$6,499	Brevan DeWeese Country Boy Farm & Garden
FNC18-1129	Designing a Cost-Efficient Salad Greens Wash Area for Small-Scale Growers	\$6,210	Matthew Jose Mad Farmers Collective
FNC18-1150	The Hoosier Harvest 365 Hospital Delivery Program	\$22,500	Linda Woodbury Nature's Gift, LLC

FNC17-1073	Measure the Effectiveness of Interseeded Cover Crops for Proactive Weed prevention in a Chemical-free, Low-till Vegetable Market Garden Operation	\$7,500	James Catron Hallelujah Acres Farm LLC
FNC17-1086	Investigating the Possibilities of Cooperative Sorghum Syrup Production and Marketing for Strengthening Small Farm Sustainability in Northern Indiana	\$22,477	Jane Loomis Old Loon Farm
FNC17-1088	Differential Impacts of Growing Medium on Micro Greens Productivity	\$7,458	Thomas McEville McEville Gardens LLC
FNC17-1089	Hoosier Young Farmer Coalition	\$6,244	Genesis McKiernan-Allen Hoosier Young Farmer Coalition
FNC17-1095	Success with Stockdogs: Herding Workshops and Continuing Skills Development for Livestock Producers	\$21,714	Denice Rackley Clearfield Stockdogs and Lamb
FNC16-1030	Improving Small Garden Farm Productivity by Extending the Growing Season and Avoiding the Uncertainty of the Weather Conditions	\$7,392	Karen Carlisle small farm
FNC16-1054	Benefiting the Symbiotic Relationship Between Farmers, Ranchers and Honeybees through Consumer Education with an Emphasis on Beekeeping and Pollinators	\$7,500	Megan Ryan Southwest Honey Co.
FNC15-1010	On-Farm Recipe Trials and Yield Impact from fermented compost (bochasi) for vegetables	\$5,680	Daniel Perkins Perkins' Good Earth Farm
FNC15-1015	Investigation into a year round complimentary broiler and vegetable farm enterprise using mobile high tunnels	\$7,476	Amy Surburg Berry Goods Farm LLC
FNC15-990	Selecting a New Array of Crisp Apples for Increased Consumer Demand and Grower Profit	\$21,735	Dr.Steven Doud Doud Orchards
FNC15-997	The Economic Impact of Fall Planting vs Spring Planting Hops	\$7,397	Stephen Howe Howe Farms

FNC14-954	Economics of Growing Hops In Indiana: Planting Rhizomes versus Fully Rooted Plants	\$7,465	Justin Kratoska Hoosier Hops Farm LLC
FNC14-956	The Economic Value of Grazing and Harvesting Cover Crops for Livestock Forage in Between Grain Crops	\$19,826	Jennifer Lattire Lattire Farms
FNC14-957	Improving Honey Bee Survival and long-term Sustainability in Indiana by Using Three Deep Brood Boxes vs. Traditional Two Deep Boxes	\$14,771	Steven Lesniak Peace Bees, LLC
FNC14-967	Development of Cost and Labor Effective Produce Sanitation Methods for Small Farms	\$7,300	Dr.Carolyn Orr Strawridge Farm
FNC13-902	Hydroponic Fodder in an Organic Pastured Poultry System: Can feed costs be reduced?	\$7,500	Lisa Burke Farming Engineers LLC
FNC13-904	Promoting sustainable beekeeping and genetic diversity through drone comb trapping	\$7,480	Ginger Davidson Geez Beez
FNC12-850	Commercial Meat Rabbitry Feasibility Study	\$13,246	Nick Carter Meat The Rabbit, LLC
FNC12-856	Sustainable Beekeeping in Indiana - Challenging the Old Paradigm of Buying Bees in the Early Spring	\$14,825	James Steven Doty ECIBA
FNC12-868	Urban Farmers Marketing Cooperative	\$21,070	Matthew Jose Mad Farmers Collective
FNC12-880	Alternative Feeds for Mid- to Large-size Pasture Raised Layer Operations	\$7,203	Isaac Moody Moody Farm
FNC12-896	An Internship Curriculum for Food Farmers in the North Central Region	\$22,319	Therese Zimmerman-Niemier Bertrand Farm Inc
FNC10-799	Scaling Up Production by Improving Worker Comfort and Efficiency in No-till Organic Seed Garlic Production System	\$3,705	Daniel Perkins Perkins' Good Earth Farm
FNC09-767	Seeding Cover Crops into Standing Corn Using Highboy Air Seeder	\$18,000	Gary Ambrione Blake Hitzfield Andy Ambrione

FNC08-724	Evaluating weed control strategies in organic vegetable production	\$6,000	Dale Rhoads Rhoads Farm
FNC08-726	Evaluation of the declining honey bee health and education of participating beekeepers	\$17,810	James Steven Doty ECIBA
FNC07-655	Enhancing Year-Round Sales of Quality Farm Product through the Use of On-Farm Geothermal Climate Controlled Storage Facilities	\$6,000	Anna Welch
FNC07-696	Marketing an Organic CSA	\$6,000	Michael Hollcraft
FNC06-609	Field Trials of Organic Herbicides in Vegetable Production	\$17,600	Dale Rhoads Rhoads Farm
FNC06-620	Developing Direct Marketing and Educational Campaigns to Promote Locally Grown Products to Consumers	\$18,000	Earl Smith
FNC06-644	Analyzing the Effectiveness and Decreasing the Use of Dewormers in Meat Goats by Using FAMACHA and Fecal Samples to Implement Integrated Pest Management	\$6,000	Steven Osborne
FNC06-645	Developing Sound Financial Data for the GrassRoots Discussion Group	\$3,840	Steve Hooley
FNC05-549	Value-added Sustainable Animal Production with Natural and Organic Leathers	\$5,500	Brent Ladd
FNC05-568	Innovative Field to Market Processes for Small Produce Farms	\$5,901	Kevin Cooley
FNC05-582	Development of Organic Weed Control Strategies	\$17,896	Dale Rhoads Rhoads Farm
FNC04-517	Benefits - Evaluation of the Application of Compost Tea in Growing Organic Vegetables	\$5,297	Dan Flotow Country Garden & Farm Market
FNC03-476	Investigating the Use of Compost Tea for Rapid Restoration of Soil Ecology on Four Indiana Farms	\$17,959	Jim Tarnowski

FNC02-389	Reasibility and Effect of Grass-Based Dairying on the Family Farm	\$5,970	Roger Garland
FNC02-402	Vaporizer for Mite Control in Beehives	\$3,441	Kenny Schneider
FNC02-419	Low-Tech Season Extended Production: Yield and Marketability of Salad Greens Varieties	\$5,132	Ivor Chodkowski
FNC01-367	Clearspring Produce Auction	\$15,000	Harvey Bontrager
FNC01-380	Advancing Organic Orcharding Through the Use of Kaolin Clay	\$4,860	Dale Rhoads Rhoads Farm
FNC00-291	White Violet Farm Fiber Research Project	\$5,000	Ann Sullivan White Violet Center
FNC00-308	Clearspring Produce Auction	\$14,595	Harvey Bontrager
FNC99-271	Jacksonville Vineyard	\$3,432	Steve Crabtree
FNC99-286	Lettuce Season Extension Trials	\$3,450	Dale Rhoads Rhoads Farm
FNC98-206	Alternative Use for Small Tobacco Acreage in Southeastern Indiana	\$3,270	Denise Dailey
FNC97-191	Great Circle FAR, CSA/Permaculture Demonstration Site	\$5,000	Beth Neff
FNC97-195	Ornamental Bittersweet Production for Small Woodland Farms	\$2,915	Klueh John
FNC96-129	Community Farm Project	\$5,000	Emily Schabacker
FNC96-151	Matted Mulch as an Alternative to Herbicide in Strawberries, Melons and Tomatoes	\$4,393	Steve Fouts

FNC96-160	Livestock Re-establishment Research Project at White Violet Farm	\$5,000	Ann Sullivan White Violet Center
FNC95-093	Composting Poultry and Swine Carcasses	\$4,926	Mark Hart
FNC95-112	On-Farm Food Waste Composting	\$5,000	Larry Whinery
FNC94-058	Growing Better Crops with IPM	\$3,175	Brian Churchill
FNC93-047	Transition from Confinement to Grazing in Beef Cattle Production	\$4,970	Frances Leuken, Jr.
FNC92-014	Hairy Vetch as Weed Control Cover Crop in Vegetable Production	\$3,620	James Rose

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GNC23-371	Improving Nitrogen Efficiency in Corn Production Systems with Data and Modeling	\$14,901	Dr.Dennis Buckmaster Purdue University Dr.Daniel Quinn Purdue University Dr.Ankita Raturi Department of Agricultural and Biological Engineering, Purdue Un Dr.Diane Wang Department of Agronomy, Purdue University Harsh Pathak Purdue University
GNC23-374	Quantifying the impact of cover crop implementation on sediment and nitrogen export in small agricultural watersheds and beyond	\$14,917	Dr.Jennifer Tank University of Notre Dame Abagael Pruitt University of Notre Dame
GNC23-376	Developing A Genomic Breeding Program for Indiana Bee Breeders	\$14,999	Brock Harpur Purdue University Dylan Ryals Purdue University
GNC23-380	Synergistic effects of entomopathogenic nematodes and trap cropping on adult and larval flea beetle population	\$14,974	Dr.Ian Kaplan Purdue University Julia Wooby Purdue University

GNC22-349	Gender, Sexuality, and Social Sustainability: Exploring Queer Farmers' Relationships, Ethics, and Practices in the Midwest	\$14,972	Dr.Elizabeth McClintock University of Notre Dame Taylor Hartson University of Notre Dame
GNC22-355	Field-Scale Evaluation of Corn Response to Nitrogen Fertilizer Application Timing following a Rye Cover Crop	\$14,740	Dr.Daniel Quinn Purdue University Dr.Shalamar Armstrong Purdue University Riley Seavers Purdue University
GNC21-334	Optimization of agricultural anaerobic co-digestion with diverse feedstocks	\$14,978	Dr.Jiqin Ni Purdue University Nathan Mosier Purdue University Jennifer Rackliffe Purdue University
GNC20-294	Establishing Pullet Welfare Measurements and Guidelines for Growers and Managers on Commercial Poultry Farms	\$14,962	Darrin Karcher, Ph.D. Purdue University Meagan Abraham, DVM Purdue University
GNC20-304	Assessing growers' knowledge of and interest in implementing insect resistant varieties as a part of an integrated pest management plan	\$13,588	Dr.Elizabeth Long Purdue University Emily Justus Purdue University
GNC20-311	Examining the utility of black soldier fly larvae composting on urban farms	\$14,832	Dr.Laura Ingwell Purdue University Caydee Terrell Purdue University
GNC20-315	Design and Management of On-Farm Wetlands for Water Quality and Climate Regulation	\$14,838	Amanda Limiac Purdue University Danielle Winter Purdue University
GNC19-277	Sulfur Use for Northern Fowl Mite Control in Poultry Systems	\$10,409	Darrin Karcher, Ph.D. Purdue University Rachel Jarrett Purdue University
GNC19-287	Using high-frequency, real-time nitrate data to understand the potential for cover crops to improve storm resiliency in the face of a changing climate	\$13,351	Dr.Jennifer Tank University of Notre Dame Shannon Speir University of Notre Dame
GNC18-256	Developing Educational Resources on Sustainable Food Systems for High School Students	\$11,354	Neil Knobloch University of Illinois Mingla Charoenmuang Purdue University

GNC18-262	Developing Financial and Risk Management Tools for Organic Grain Farmers	\$12,000	Brady Brewer Purdue University Nathan Delay Purdue University Nicholas Lancaster Purdue University
GNC18-264	Springtails as Bioindicators of Soil Health	\$11,988	Dr.Jeffrey Holland Purdue University Eoghan McCroskey Purdue University
GNC18-269	Understanding Cereal Rye Nitrogen Decomposition and its Transition into Inorganic and Organic Soil Nitrogen Pools	\$11,999	Dr.Shalamar Armstrong Purdue University Richard Roth Purdue University
GNC16-231	Understanding the Influence of Soil Microbial Diversity on the Synchronization of Cover Crop Residue Nitrogen Mineralization at Critical Growth Stages of Corn and Soybean Cash Crops	\$11,154	Dr.Shalamar Armstrong Purdue University Clayton Nevins Purdue University
GNC15-199	Functional Role of Native Mice in Midwestern Agroecosystems: Unwanted Pests or Friendly Neighbors?	\$9,879	Dr.Robert Swihart Purdue University Dr.Jacob Berl Purdue University
GNC15-203	Quantifying the Impacts of Planting Cover Crops as a Conservation Tool to Reduce Nutrient Loss from Midwestern Farms	\$9,999	Dr.Jennifer Tank University of Notre Dame Brittany Hanrahan University of Notre Dame
GNC14-183	Economic Based Decision Support for Sustainable Horse Drawn Farming Enterprises	\$9,538	Nicole Olynk Widmar Purdue University Elizabeth Byrd Purdue University
GNC12-151	Comparing the Effects of Spring and Fall Tillage on Larval Populations of a Beneficial Insect	\$9,916	Dr.Ian Kaplan Purdue University Dr.Carmen Blubaugh University of Illinois
GNC10-122	Evaluation of Grain Amaranth and Quinoa as Forage Crops to Improve the Sustainability and Profitability of Small Livestock Operations	\$9,800	Keith Johnson Purdue University Dr.Tamilee Nennich Purdue University John McMillan Purdue University
GNC10-125	Farmer Access to Regional Meat Processing Capacity in the North Central Region	\$9,997	Dr.Raymond Florax Purdue University Peter Mitchell Purdue University

GNC10-129	Growing Grain, Forage and/or Ethanol Feedstock	\$10,000	Dr.Dennis Buckmaster Purdue University Craig Dobbins Dr.Herbert Ohm Purdue University Dr.Lori Snyder Purdue University Dr.Tony Vyn Purdue University Samantha Shoaf Purdue University Samantha Shoaf Purdue University
GNC10-133	Economic Based Decision Support to Promote Sustainable Livestock Enterprises	\$10,000	Joan Fulton Purdue University Anna Allcorn Purdue University
GNC10-140	Engaging Farmers to Improve Communication and Model Representation of Agricultural Ecosystem Services	\$9,997	Dr.Indrajeet Chaubey Purdue University Dr.Jane Frankenberger Purdue University Rebecca Logsdon Purdue University Margaret Kalcic Purdue University Elizabeth Trybula Purdue University
GNC06-066	Improving Agricultural Sustainability through Drainage Water Management Practices	\$10,000	Dr.Jane Frankenberger Purdue University Roxanne Adeuya Agricultural and Biological Engineering
GNC05-045	Using farmer input to develop research projects and outreach activities for organic agriculture	\$10,000	Kevin Gibson Purdue University David Hillger Purdue University
GNC03-020	Development of Appropriate Participatory On-Farm Trial Designs for Sustainable Precision Agriculture Systems	\$10,000	James Lowenberg-DeBoer Purdue University Terry Griffin Purdue University
GNC02-009	The Role of School Gardens in Influencing Attitudes of Students Toward Agriculture, Science, and the Environment while Fostering Academic Achievement in Classrooms	\$10,000	Kathryn Orvis Purdue University Amy Robinson-Dirks Purdue University

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
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ONC24-139	Solving the Compost Conundrum: Utilizing Microbial Inoculation to Increase Fertility and Soil Health on Small Farms	\$15,565	Megan Ayers Urban Soil Health
ONC24-141	Addressing knowledge gaps in animal traction for vegetable production and forest management on Midwest farms	\$46,660	Moriah Bilenky Purdue University
ONC24-149	Partnership to Study Sustainable Methods for Growing Figs in the North Central Region	\$49,898	Dr.Kris Heeter NAFEX
ONC23-134	Food, Farming and Sustainability: A Whole Systems Approach for Farm-to-School Education for the Future of Food Security.	\$38,192	Therese Zimmerman Good Shepherd Montessori School
ONC22-109	On-Farm Internships to Increase Sustainable Urban Farming in Lake County, Indiana	\$39,997	Rebecca Koetz Purdue Extension
ONC21-097	Farm Education for Core Curriculum: Teachers and Farmers Partnering for the Future of Food Security	\$39,999	Therese Zimmerman Good Shepherd Montessori School
ONC20-068	Stories that Sell: A Robust Communications Toolkit for Sustainable Ag Farmers and Ranchers	\$39,806	Ahna Kruzic Women, Food and Agriculture Network Juliann Salinas WFAN
ONC20-080	Hoosier Harvest 365 Hospital Delivery Program Expansion	\$38,000	Amy Surburg Hoosier Harvest Market
ONC18-044	Making the Most of Mulch: Strategic Systems for Small Organic Tomato Growers	\$28,394	Dr.Heather Reynolds Indiana University
ONC17-023	Indy Urban Mushrooms: Growing Revenue Through Collaborative Exploration of Mushroom Production	\$29,865	Dr.Julia Angstmann Center for Urban Ecology and Sustainability, Butler University
ONC17-027	Using Grafting Technology to Enhance Greenhouse Cucumber Production in High Tunnels	\$29,791	Wenjing Guan Purdue University
ONC15-008	Scheduling Vegetable Planting for Winter Protected Production in the Midwest	\$29,994	Elizabeth Maynard Purdue University

YOUTH EDUCATOR GRANTS

Project #	Project Title	SARE Support	Project Leaders
YENC24-211	Exploration of Micro-Economics on the Modern Small Farm. Community Outreach through Advanced Gardening in Protected Culture.	\$5,786	Axel Cooper Community Montessori
YENC22-173	Young Grow Getters	\$6,000	Shalise Lee Growing Places Indy
YENC22-176	Migrant Summer School Program	\$6,000	Andrea Crawford El Campito Child Development Center
YENC22-177	Youth Grow Indy Programming	\$4,237	Danielle Guerin Soul Food Project
YENC21-157	Growing Places Indy "Grow Getters" Program	\$4,000	Victoria Beaty Growing Places Indy
YENC20-152	Creating Youth Leaders Using Sustainable Urban Agricultural Practices	\$3,828	Alexandria Pettigrew Purdue Extension Nathan Shoaf Purdue Extension Beth Siple Purdue University
YENC19-134	STEM and Sustainable Agriculture: Modeling an Interdisciplinary Approach in the High School Setting.	\$3,954	Kelly Hladek Munster High School
YENC19-143	Teter Farm Camp	\$4,000	MaryEllen St.Angelo Teter Organic Farm
YENC17-112	The Garbage to Garden Project: Providing Composting Services and Education	\$1,320	Kathy Haste Johnson County Soil & Water Conservation District
YENC17-113	Edible Schoolyard Bedford	\$1,998	Jamie Hooten Lincoln Elementary School/Lincoln Green Thumbs
YENC17-117	School-Farm Partnerships: Creating Natural Systems of Education for Food Production and Environmental Stewardship	\$2,000	Dr.Eric Oglesbee Good Shepherd Montessori School
YENC16-098	Growing Places Indy High School Supervised Agricultural Experience	\$2,000	Tyler Henderson Growing Places Indy

YENC14-071	Youth Conservation Field Day	\$2,000	Janel Meyer Steuben County Soil and Water Conservation District
YENC14-073	Sustainable Agriculture Through Home Composting	\$2,000	Virginia Roberts Purdue University - Marion County Extension Jeffrey Jones Purdue Extension
YENC14-076	Watching Food Grow: a small organic apple orchard at a rural elementary school	\$1,934	Dr.Perry Kirkham Wea Creek Orchard Mike Pinto James A Cole Elementary
YENC14-081	Northeast Indiana sustainable agriculture field day to increase youth interest in sustainable agriculture concepts and careers	\$1,967	Jonathon Zirkle Merry Lea Environmental Learning Center of Goshen College
YENC09-012	Exploring Sustainability through Conventional Row Crop Farm	\$2,000	Leslie Fairchilde Columbus High School
YENC09-014	Harvest Learning Initiative	\$520	Roberta Jannsen Shawnash Institute, Inc. Clara Clark New Prairie High School

YOUTH GRANTS

Project #	Project Title	SARE Support	Project Leaders
YNC09-032	Testing Fly Control Methods to Encourage Urban Poultry	\$396	Libby Beetem
YNC08-007	Impact of Rotational Grazing on Species Composition in a Square Foot Plot During a 21 Day Rotational Grazing Cycle - May through September, 2009	\$263	Graham Rider Thistle Byre Farm
YNC08-008	The Efficiency of Jerusalem Artichokes (Sunchoke) as a Part of a Diversified Pasture Plan for My Free Range Feed Pigs	\$385	Andrew Rider

**Total funding from the USDA SARE program to
Indiana
\$7,108,157**



For further information on projects, contact North Central SARE at (612) 626-3113 or ncrsare@umn.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).