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 $310 million to more than 7,434 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.

SARE in Indiana

northcentral.sare.org/state-programs/indiana

$5,118,172 in total funding

155 grant projects

(since 1988)

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

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

There are many decisions to make before pursuing a small-scale livestock operation, and having realistic budget and profitability expectations are a critical part of that decision-making process. To assist potential producers in making informed choices about their operations, Anna Lee Allcorn, then a graduate student at Purdue University, received a 2010 SARE grant to evaluate the economic returns and business opportunities for alternative sustainable livestock enterprises, and to develop a decision-support tool.

“When decision-makers are able to make better investment decisions, there is a greater chance they will be successful, which in turn has a positive long-term impact on the quality of life of the participants, the economies of the rural communities where they live and the livestock industry overall,” said Allcorn.

The resulting Comparative Decision Support toolkit includes a spreadsheet that allows users to create an operating budget based on their own fixed and variable costs, cash flow and expected revenue. The profit/loss analysis function uses cost and price information to calculate potential earnings from multiple livestock enterprises, including cow-calf, dairy steers, sheep, goats and turkeys. After completing the mini-module, users across the region will have evaluated multiple objectives to make a small-scale livestock enterprise entry decision.

For more information on this project, see sare.org/projects, and search for project number GNC10-133.
SARE Grants in Indiana

Total awards: 155 grants
- 75 Farmer/Rancher
- 24 Graduate Student
- 6 On Farm Research/Partnership
- 10 Professional Development Program
- 24 Research and Education
- 3 Youth
- 13 Youth Educator

Total funding: $5,118,172
- $770,111 Farmer/Rancher
- $269,601 Graduate Student
- $195,850 On Farm Research/Partnership
- $692,056 Professional Development Program
- $3,159,990 Research and Education
- $1,043 Youth
- $29,521 Youth Educator

Find a complete list of projects on page 3.

SARE's Impact

53 percent of producers report using a new production technique after reading a SARE publication.

79 percent of producers said they improved soil quality through their SARE project.

64 percent of producers said their SARE project helped them achieve higher sales.

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.

Tamara Benjamin
Purdue Extension
(765) 496-1930
tamara17@purdue.edu

Lais McCartney
Purdue Extension, Hancock County
(317) 919-2691
lmccartn@purdue.edu

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

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA).

This report includes summaries of competitive grant programs only. Some competitive grant programs that are no longer offered may be included or excluded from the totals in this report depending on the grant program and SARE region.
Indiana has been awarded $5,118,172 grants to support 154 projects, including but not limited to, 23 research and/or education projects, 10 professional development projects and 75 producer-led projects. Indiana has also received additional SARE support through multi-state projects.

### RESEARCH AND EDUCATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNC20-438</td>
<td>Improving two spotted spider mite management in high tunnel cucumber production</td>
<td>$249,919</td>
<td>Dr. Laura Ingwell Purdue University</td>
</tr>
<tr>
<td>LNC20-443</td>
<td>Identifying and Expanding Integrated Disease Management Resources to include Organic Grains in Support of Organic and Transitional North Central Farms</td>
<td>$249,984</td>
<td>Dr. Darcy Telenko Purdue University</td>
</tr>
<tr>
<td>LNC20-444</td>
<td>Participatory Farmer Monitoring on Nitrates: Using Farm-Scale Data to Improve Nutrient Management and Water Quality</td>
<td>$236,702</td>
<td>Dr. Landon Yoder Indiana University</td>
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<tr>
<td>LNC18-399</td>
<td>Increasing the Sustainable Production and Access of Fresh Produce in Urban Areas of NW Indiana</td>
<td>$199,676</td>
<td>Dr. Tamara Benjamin Purdue University</td>
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<tr>
<td>LNC18-408</td>
<td>Biological Approaches to Sustainable Mint Production</td>
<td>$199,994</td>
<td>Dr. Petrus Langenhoven Purdue University</td>
</tr>
<tr>
<td>LNC17-390</td>
<td>Improving Seedless Cucumber Production to Diversify High Tunnel Crops in the North Central Region</td>
<td>$200,000</td>
<td>Wenjing Guan Purdue University</td>
</tr>
<tr>
<td>LNC17-397</td>
<td>Organic Transition and Certification: Supporting Indiana Grain Farmers’ Capacity to Meet Market Demand</td>
<td>$194,663</td>
<td>Dr. Tamara Benjamin Purdue University, Michael O’Donnell Purdue Extension</td>
</tr>
<tr>
<td>LNC16-377</td>
<td>Transitioning farm and ranch land from one family to another: Evaluating new strategies for profitable transfers and sustainable agriculture partnerships</td>
<td>$199,566</td>
<td>Dr. James Farmer Indiana University, Dr. Julia Valliant Indiana University</td>
</tr>
<tr>
<td>LNC15-374</td>
<td>Economic Viability of Shared-Use Kitchens in the North Central Region</td>
<td>$135,819</td>
<td>Dr. Rhonda Phillips Purdue University, Jodee Ellett Purdue University Cooperative Extension Service</td>
</tr>
<tr>
<td>LNC14-359</td>
<td>Evaluating the Impact of Biochar on Soil Fertility and Crop Productivity through Farmer Participatory Research and a Student Internship Program</td>
<td>$194,732</td>
<td>Kevin Gibson Purdue University</td>
</tr>
<tr>
<td>LNC08-295</td>
<td>Improving honey Bee Health and Pollination Sustainability with Mite-Resistant Bees</td>
<td>$117,861</td>
<td>Dr. Greg Hunt Purdue University</td>
</tr>
</tbody>
</table>
**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  

**LNC97-122**  
Development of Market Infrastructure to Support Local and Regional Food Systems  
$86,200  
Steve Bonney  
Sustainable Earth Inc  

**LNC96-100**  
Evaluation of Composted Manure as a Growth and Delivery Substrate for the Biological Weed Control Agent Gliocladium virens in Sustainable Vegetable Production Systems  
$70,000  
Stephen Weller  
Dept of Horticulture and Landscape Architecture, Purdue University  

**LNC96-095**  
Multiple-Use Borderlands: An Educational and Demonstration Project  
$83,832  
Bruno Moser  
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  

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**PROFESSIONAL DEVELOPMENT PROGRAM GRANTS**

**Project #** | **Project Title** | **SARE Support** | **Project Leaders**
--- | --- | --- | ---
**ENC20-193** | Enhancing Cover Crop Training in the North Central Region | $90,000 | Kladivko Eileen  
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 | Mike Smith  
Conservation Technology Information Center  

ENC18-167  Adapting Soil Health Curriculum to Ag Retailer Training  $74,875  Lisa Holscher  Indiana Association of Soil and Water Conservation Districts

ENC17-159  Midwest Cover Crops Council - Cover Crop Decision Tool  $74,680  Kladivko 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

**FARMER/RANCHER GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNC20-1220</td>
<td>Near Northeast Community Supported Agriculture Program</td>
<td>$7,525</td>
<td>Danielle Guerin  Soul Food Project</td>
</tr>
<tr>
<td>FNC20-1241</td>
<td>Revisiting Farm Diversification through Trout and Walleye Food Fish Production</td>
<td>$8,932</td>
<td>Dr. Carolyn Orr  Strawridge Farm</td>
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<tr>
<td>FNC20-1244</td>
<td>Low Stress Livestock Management Hands-On Skill Building workshops</td>
<td>$25,275</td>
<td>Denice Rackley  Clearfield Stockdogs and Lamb</td>
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<tr>
<td>FNC20-1245</td>
<td>Creative Solutions to Reverse Indianapolis' Healthy Food Accessibility Trends</td>
<td>$23,648</td>
<td>Joyce Randolph  The Elephant Gardens</td>
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<td>FNC20-1252</td>
<td>Understanding the willingness of farms to utilize lung scanning in their cattle operations</td>
<td>$26,745</td>
<td>Tabitha Steckler  Hunley Creek Heifer Farm</td>
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<tr>
<td>FNC20-1214</td>
<td>Utilizing living mulch in organic corn production</td>
<td>$7,862</td>
<td>Jared Crum  Rick and Peggy Crum</td>
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<tr>
<td>FNC19-1196</td>
<td>Varroa mite and Small Hive Beetle management: Single brood chamber hive versus double brood chamber hive</td>
<td>$7,965</td>
<td>Mikael Thompson  Thompson’s Prairie Honey</td>
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<tr>
<td>FNC19-1159</td>
<td>Holistic Forestry, Vegetables, and Small Livestock Production that Eradicates Invasive Species and Exposes Consumers to Sustainable Agriculture.</td>
<td>$8,233</td>
<td>Nick Carter  Mud Creek Farm</td>
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<tr>
<td>FNC19-1168</td>
<td>A Comprehensive Exploration Of Targeted Grazing With Goats</td>
<td>$8,943</td>
<td>Kaitlin Hossom  Second Planet Farmstead</td>
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<tr>
<td>FNC19-1169</td>
<td>Legacy’s United Farmers, Communities and Urban Food deserts</td>
<td>$26,827</td>
<td>John Jamerson  Legacy Taste of the Garden LLC</td>
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<tr>
<td>Project ID</td>
<td>Title</td>
<td>Funding</td>
<td>Contact(s)</td>
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<tr>
<td>FNC19-1180</td>
<td>No Waste Mushroom Cultivation: Viability Comparison of Spent Grain and Coffee Grounds for Small-scale and Urban farmers</td>
<td>$5,445</td>
<td>Lauren E McCalister Three Flock Farm</td>
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<tr>
<td>FNC18-1120</td>
<td>Creating a Micro Farm: Using Everything, Wasting Nothing, and Inspiring Young People to Do the Same</td>
<td>$6,499</td>
<td>Brevan DeWeese Country Boy Farm &amp; Garden</td>
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<tr>
<td>FNC18-1129</td>
<td>Designing a Cost-Efficient Salad Greens Wash Area for Small-Scale Growers</td>
<td>$6,210</td>
<td>Matthew Jose Mad Farmers Collective</td>
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<tr>
<td>FNC18-1150</td>
<td>The Hoosier Harvest 365 Hospital Delivery Program</td>
<td>$22,500</td>
<td>Linda Woodbury Nature's Gift, LLC</td>
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<tr>
<td>FNC18-1111</td>
<td>Improving Worker Welfare and Grower Profitability in Small-scale Strawberry Production</td>
<td>$22,474</td>
<td>Richard Barnes Tanglewood Berry Farm</td>
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<tr>
<td>FNC18-1115</td>
<td>Planning for a Farmer-to-Farmer Butcher Shop</td>
<td>$15,000</td>
<td>Liz Brownlee Nightfall Farm</td>
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<tr>
<td>FNC18-1116</td>
<td>Increasing yields, plant vigor and soil health with the use of woodchips</td>
<td>$7,493</td>
<td>Karen Carlisle small farm</td>
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<tr>
<td>FNC18-1117</td>
<td>Pasture-Crop Tests without Chemical Termination</td>
<td>$3,300</td>
<td>Timothy Carter Honey Creek Farm</td>
</tr>
<tr>
<td>FNC17-1086</td>
<td>Investigating the Possibilities of Cooperative Sorghum Syrup Production and Marketing for Strengthening Small Farm Sustainability in Northern Indiana</td>
<td>$22,477</td>
<td>Jane Loomis Old Loon Farm</td>
</tr>
<tr>
<td>FNC17-1089</td>
<td>Hoosier Young Farmer Coalition</td>
<td>$6,244</td>
<td>Genesis McKiernan-Allen Hoosier Young Farmer Coalition</td>
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<tr>
<td>FNC17-1095</td>
<td>Success with Stockdogs: Herding Workshops and Continuing Skills Development for Livestock Producers</td>
<td>$21,714</td>
<td>Denice Rackley Clearfield Stockdogs and Lamb</td>
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<tr>
<td>FNC17-1073</td>
<td>Measure the Effectiveness of Interseeded Cover Crops for Proactive Weed prevention in a Chemical-free, Low-till Vegetable Market Garden Operation</td>
<td>$7,500</td>
<td>James Catron Hallelujah Acres Farm LLC</td>
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<tr>
<td>FNC16-1054</td>
<td>Benefiting the Symbiotic Relationship Between Farmers, Ranchers and Honeybees through Consumer Education with an Emphasis on Beekeeping and Pollinators</td>
<td>$7,500</td>
<td>Megan Ryan Southwest Honey Co.</td>
</tr>
<tr>
<td>FNC16-1030</td>
<td>Improving Small Garden Farm Productivity by Extending the Growing Season and Avoiding the Uncertainty of the Weather Conditions</td>
<td>$7,392</td>
<td>Karen Carlisle small farm</td>
</tr>
<tr>
<td>FNC15-1010</td>
<td>On-Farm Recipe Trials and Yield Impact from fermented compost (bochasi) for vegetables</td>
<td>$5,680</td>
<td>Daniel Perkins Perkins’ Good Earth Farm</td>
</tr>
</tbody>
</table>
**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

**FNC12-880**
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

**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  
Indiana Beekeepers Association

**FNC12-868**
Urban Farmers Marketing Cooperative

$21,070  
Matthew Jose  
Mad Farmers Collective

**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 Ambriole  
Blake Hitzfield  
Andy Ambriole

**FNC08-724**
Evaluating weed control strategies in organic vegetable production

$6,000  
Dale Rhodes  
Rhoads Farm

**FNC08-726**
Evaluation of the declining honey bee health and education of participating beekeepers

$17,810  
James Steven Doty  
Indiana Beekeepers Association
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Budget</th>
<th>Contact</th>
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<tbody>
<tr>
<td>FNC07-696</td>
<td>Marketing an Organic CSA</td>
<td>$6,000</td>
<td>Michael Hollcraft</td>
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<tr>
<td>FNC07-655</td>
<td>Enhancing Year-Round Sales of Quality Farm Product through the Use of On-Farm Geothermal Climate Controlled Storage Facilities</td>
<td>$6,000</td>
<td>Anna Welch</td>
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<tr>
<td>FNC06-609</td>
<td>Field Trials of Organic Herbicides in Vegetable Production</td>
<td>$17,600</td>
<td>Dale Rhoads</td>
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<tr>
<td>FNC06-620</td>
<td>Developing Direct Marketing and Educational Campaigns to Promote Locally Grown Products to Consumers</td>
<td>$18,000</td>
<td>Earl Smith</td>
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<tr>
<td>FNC06-644</td>
<td>Analyzing the Effectiveness and Decreasing the Use of Dewormers in Meat Goats by Using FAMACHA and Fecal Samples to Implement Integrated Pest Management</td>
<td>$6,000</td>
<td>Steven Osborne</td>
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<td>FNC06-645</td>
<td>Developing Sound Financial Data for the GrassRoots Discussion Group</td>
<td>$3,840</td>
<td>Steve Hooley</td>
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<tr>
<td>FNC05-549</td>
<td>Value-added Sustainable Animal Production with Natural and Organic Leathers</td>
<td>$5,500</td>
<td>Brent Ladd</td>
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<tr>
<td>FNC05-568</td>
<td>Innovative Field to Market Processes for Small Produce Farms</td>
<td>$5,901</td>
<td>Kevin Cooley</td>
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<tr>
<td>FNC05-582</td>
<td>Development of Organic Weed Control Strategies</td>
<td>$17,896</td>
<td>Dale Rhoads</td>
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<tr>
<td>FNC04-517</td>
<td>Benefits &amp; Evaluation of the Application of Compost Tea in Growing Organic Vegetables</td>
<td>$5,297</td>
<td>Dan Flotow</td>
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<tr>
<td>FNC03-476</td>
<td>Investigating the Use of Compost Tea for Rapid Restoration of Soil Ecology on Four Indiana Farms</td>
<td>$17,959</td>
<td>Jim Tarnowski</td>
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<tr>
<td>FNC02-389</td>
<td>Reasibility and Effect of Grass-Based Dairying on the Family Farm</td>
<td>$5,970</td>
<td>Roger Garland</td>
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<tr>
<td>FNC02-402</td>
<td>Vaporizer for Mite Control in Beehives</td>
<td>$3,441</td>
<td>Kenny Schneider</td>
</tr>
<tr>
<td>FNC02-419</td>
<td>Low-Tech Season Extended Production: Yield and Marketability of Salad Greens Varieties</td>
<td>$5,132</td>
<td>Ivor Chodkowski</td>
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<tr>
<td>FNC01-367</td>
<td>Clearspring Produce Auction</td>
<td>$15,000</td>
<td>Harvey Bontrager</td>
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<tr>
<td>FNC01-380</td>
<td>Advancing Organic Orcharding Through the Use of Kaolin Clay</td>
<td>$4,860</td>
<td>Dale Rhoads</td>
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<tr>
<td>FNC00-308</td>
<td>Clearspring Produce Auction</td>
<td>$14,595</td>
<td>Harvey Bontrager</td>
</tr>
</tbody>
</table>

Note: The above table lists some of the projects and their respective budgets and contacts.
FNC00-291  White Violet Farm Fiber Research Project  $5,000  Ann Sullivan  White Violet Center

FNC99-286  Lettuce Season Extension Trials  $3,450  Dale Rhoads  Rhoads Farm

FNC99-271  Jacksonville Vineyard  $3,432  Steve Crabtree

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

FNC95-112  On-Farm Food Waste Composting  $5,000  Larry Whinery

FNC95-093  Composting Poultry and Swine Carcasses  $4,926  Mark Hart

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

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**GRADUATE STUDENT GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| GNC20-304    | Assessing growers' knowledge of and interest in implementing insect resistant varieties as a part of an integrated pest management plan | $13,588      | 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      | Purdue University  
|              |                                                                                |              | Danielle Winter Purdue University    |
GNC20-294  Establishing Pullet Welfare Measurements and Guidelines for Growers and Managers on Commercial Poultry Farms  $14,962  Dr. Darrin Karcher  Purdue University  Meagan Abraham, DVM  Purdue University

GNC19-277  Sulfur Use for Northern Fowl Mite Control in Poultry Systems  $10,409  Dr. Darrin Karcher  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  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  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  Carmen Blubaugh  Purdue University

GNC10-133  Economic Based Decision Support to Promote Sustainable Livestock Enterprises  $10,000  Joan Fulton  Purdue University  Anna Allcorn  Purdue University
ON FARM RESEARCH/PARTNERSHIP GRANTS

<table>
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<tr>
<th>Project #</th>
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<th>Project Leaders</th>
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<tbody>
<tr>
<td>ONC20-068</td>
<td>Stories that Sell: A Robust Communications Toolkit for Sustainable Ag Farmers and Ranchers</td>
<td>$39,806</td>
<td>Ahna Kruzic</td>
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<td>ONC20-080</td>
<td>Hoosier Harvest 365 Hospital Delivery Program Expansion</td>
<td>$38,000</td>
<td>Amy Surburg Hoosier Harvest Market</td>
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<td>ONC18-044</td>
<td>Making the Most of Mulch: Strategic Systems for Small Organic Tomato Growers</td>
<td>$28,394</td>
<td>Dr.Heather Reynolds Indiana University</td>
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<td>ONC17-023</td>
<td>Indy Urban Mushrooms: Growing Revenue Through Collaborative Exploration of Mushroom Production</td>
<td>$29,865</td>
<td>Dr. Julia Angstmann&lt;br&gt;Center for Urban Ecology, Butler University</td>
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<td>ONC17-027</td>
<td>Using Grafting Technology to Enhance Greenhouse Cucumber Production in High Tunnels</td>
<td>$29,791</td>
<td>Wenjing Guan&lt;br&gt;Purdue University</td>
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<td>ONC15-008</td>
<td>Scheduling Vegetable Planting for Winter Protected Production in the Midwest</td>
<td>$29,994</td>
<td>Elizabeth Maynard&lt;br&gt;Purdue University</td>
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**YOUTH EDUCATOR GRANTS**

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<tr>
<td>YENC20-152</td>
<td>Creating Youth Leaders Using Sustainable Urban Agricultural Practices</td>
<td>$3,828</td>
<td>Alexandria Pettigrew&lt;br&gt;Purdue Extension&lt;br&gt;Nathan Shoaf&lt;br&gt;Purdue Extension&lt;br&gt;Beth Siple&lt;br&gt;Purdue University</td>
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<td>YENC19-134</td>
<td>STEM and Sustainable Agriculture: Modeling an Interdisciplinary Approach in the High School Setting.</td>
<td>$3,954</td>
<td>Kelly Hladek&lt;br&gt;Munster High School</td>
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<td>YENC19-143</td>
<td>Teter Farm Camp</td>
<td>$4,000</td>
<td>MaryEllen St.Angelo&lt;br&gt;Teter Organic Farm</td>
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<td>YENC17-112</td>
<td>The Garbage to Garden Project: Providing Composting Services and Education</td>
<td>$1,320</td>
<td>Kathy Haste&lt;br&gt;Johnson County Soil &amp; Water Conservation District</td>
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<tr>
<td>YENC17-113</td>
<td>Edible Schoolyard Bedford</td>
<td>$1,998</td>
<td>Jamie Hooten&lt;br&gt;Lincoln Elementary School/Lincoln Green Thumbs</td>
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<td>YENC17-117</td>
<td>School-Farm Partnerships: Creating Natural Systems of Education for Food Production and Environmental Stewardship</td>
<td>$2,000</td>
<td>Dr. Eric Oglesbee&lt;br&gt;Good Shepherd Montessori School</td>
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<td>YENC16-098</td>
<td>Growing Places Indy High School Supervised Agricultural Experience</td>
<td>$2,000</td>
<td>Tyler Henderson&lt;br&gt;Growing Places Indy</td>
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<td>YENC14-071</td>
<td>Youth Conservation Field Day</td>
<td>$2,000</td>
<td>Janel Meyer&lt;br&gt;Steuben County Soil and Water Conservation District</td>
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<td>YENC14-073</td>
<td>Sustainable Agriculture Through Home Composting</td>
<td>$2,000</td>
<td>Virginia Roberts&lt;br&gt;Purdue University - Marion County Extension&lt;br&gt;Jeffrey Jones&lt;br&gt;Purdue Extension</td>
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<td>YENC14-076</td>
<td>Watching Food Grow: a small organic apple orchard at a rural elementary school</td>
<td>$1,934</td>
<td>Dr. Perry Kirkham&lt;br&gt;Wea Creek Orchard&lt;br&gt;Mike Pinto&lt;br&gt;James A Cole Elementary</td>
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<td>YENC14-081</td>
<td>Northeast Indiana sustainable agriculture field day to increase youth interest in sustainable agriculture concepts and careers</td>
<td>$1,967</td>
<td>Jonathon Zirkle&lt;br&gt;Merry Lea Environmental Learning Center of Goshen College</td>
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<td>YENC09-012</td>
<td>Exploring Sustainability through Conventional Row Crop Farm</td>
<td>$2,000</td>
<td>Leslie Fairchilde&lt;br&gt;Columbus High School</td>
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<td>YENC09-014</td>
<td>Harvest Learning Initiative</td>
<td>$520</td>
<td>Roberta Jannsen&lt;br&gt;Shawnash Institute, Inc.&lt;br&gt;Clara Clark&lt;br&gt;New Prairie High School</td>
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<td>YNC09-032</td>
<td>Testing Fly Control Methods to Encourage Urban Poultry</td>
<td>$396</td>
<td>Libby Beetem</td>
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<td>YNC08-007</td>
<td>Impact of Rotational Grazing on Species Composition in a Square Foot Plot During a 21 Day Rotational Grazing Cycle – May through September, 2009</td>
<td>$263</td>
<td>Graham Rider, Thistle Byre Farm</td>
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<td>YNC08-008</td>
<td>The Efficiency of Jerusalem Artichokes (Sunchokes) as a Part of a Diversified Pasture Plan for My Free Range Feed Pigs</td>
<td>$385</td>
<td>Andrew Rider</td>
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Total funding from the USDA SARE program to Indiana
$5,118,172

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).