

PL #	Project #	R/E	Project Title	Last Name	Primary Grantee	State	Requested	Systems	Commodity	Description
NCR 004	LNC17-387	E	Increasing Market-Farm Enterprise Resilience in Response to Significant Weather Events, Significant Life Events, and Other Threats to Livelihood: A collaborative response to known quality of life concerns	Blanchard	Purple Pitchfork	WI	\$96,949	Quality of Life	Vegetable Crops	This project funds in-depth discussion of grower- identified tests of business resilience: significant weather events, significant life events, and operational threats. Up to 50 North Central region producers who have experienced these threats will be professionally interviewed, with the best of this content transcribed and developed into live webinars, 90-minute podcast episodes, and written articles, bringing producers together for curated discussion. Results will be broadcast to an established farmer audience of more than 7,000.
NCR 019	LNC17-388	R	Improving farmer options for sustainable and profitable direct-market tomato production and hoop house management in the Upper Midwest.	Dawson	The Board of Regents of the University of Wisconsin System	WI	\$194,663	Crop Production	Vegetable Crops	Farmers selling to local markets require high-quality tomato varieties adapted to the Upper Midwest. This project will improve varieties specifically for hoop house and open-field production under organic conditions, and will test lower-cost mobile alternatives to hoop houses. We will expand farmer participation in on-farm trials of tomatoes for local markets. The involvement of chefs and other consumers will provide information on flavor and market quality and will strengthen market opportunities for direct-market growers.
NCR 024	LNC17-389	R	Testing N efficient, high methionine corn hybrids with organic farmers	Goldstein	Mandaamin Institute	WI	\$196,088	Crop Production	Grain Crops	Mandaamin Institute will test nitrogen-efficient, high-methionine corn hybrids on seven Wisconsin organic farms using a replicated-strip design with a conventional hybrid check and by determining weediness, grain yield, nitrogen balance, nitrogen efficiency, and comparative nutritional value under fertilized and unfertilized conditions. Results will be communicated through publications and meetings and will focus on the value of the corn for more sustainable corn production and for meeting the methionine needs of organic poultry producers.
NCR 023	LNC17-390	R	Improving Seedless Cucumber Production to Diversify High Tunnel Crops in the North Central Region	Guan	Purdue University	IN	\$200,000	Crop Production	Vegetable Crops	Farmers in the North Central Region who consistently grow tomatoes under high tunnels need additional high-value crops for rotation. Seedless cucumber provides an option. However, low soil temperature in the early season, as well as pest problems, limit cucumber production. This project uses grafting and intensive leaf pruning techniques to address these challenges, with the ultimate goal of increasing cucumber production and diversifying high tunnel cropping systems in the region.
NCR 015	LNC17-391	R	Characterization of winter forage management in North Central Region beef cow-calf operations	Meyer	University of Missouri	MO	\$199,732	Integrated Crop	Hay and Forage Crops	Winter forage and nutritional management practices, as well as production and socioeconomics, of beef cow-calf producers in the NCR will be evaluated. Forage analyses of alternative winter feeds including cover crops and corn residue will be merged with existing commercial databases of traditional forages to develop a forage quality benchmarking database. Sustained environmental quality through improved forage management will not only increase profitability of cow-calf producers, but will enhance quality of life for local communities.
NCR 009	LNC17-392	R	Collaborative Evaluation of Ecosystem Services Provided by Urban Agricultural Best Management Practices in the Twin Cities Metropolitan Area	Jelinski	University of Minnesota-Twin Cities	MN	\$198,529	Natural Resources/ Environment	Vegetable Crops	This project will utilize an existing team of academic, grower, and community partners to conduct integrated on- and off- farm participatory research to evaluate the ecosystem services provided by urban agriculture in the Twin Cities Metropolitan Area. The purpose of this work is to provide a scientific basis for the evaluation of urban agricultural best management practices with respect to ecosystem services such as soil and water quality, water infiltration, crop production, and biodiversity.

NCR 008	LNC17-393	R	Optimizing anaerobic soil disinfestation to manage emerging soilborne diseases in tomato protected culture systems in the North Central Region	Miller	The Ohio State University	OH	\$149,349	Pest Management	Vegetable Crops	We will optimize anaerobic soil disinfestation, a promising tactic to manage soilborne diseases, in high value tomato production systems in the North Central Region of the United States. We will determine how anaerobic soil disinfestation affects beneficial soil microbes, plant health, and soil health and introduce the technology to farmers in the region.
NCR 012	LNC17-394	E	Land-Based Learning Centers: A multi-generational educational approach to promoting on-farm sustainable agriculture	Raven	Michigan State University	MI	\$151,408	Education and Training	Other	To support ongoing efforts in Michigan's Upper Peninsula (U.P.), the Michigan State University North Farm will develop seven land-based learning centers in cooperation with local farmers implementing sustainable agricultural practices. The seven land-based learning centers will provide on-farm, place-based learning opportunities focused on sustainable agricultural practices for emerging student-farmers in each of the seven intermediate school districts (ISD) in the U.P. This project supports development of the future generation of sustainable farmers.
NCR 001	LNC17-395	R	Deep Winter Food Production in the North Central Region	Schweser	UMN Regional Sustainable Development Partnerships	MN	\$196,423	Crop Production	Vegetable Crops	This project will advance indoor winter food production in the North Central Region using passive solar Deep Winter Greenhouses as labs to conduct research such as variety trials and test soil mixes to maximize production. In addition the project team will determine enterprise profitability and host field days for farmers interested in building a DWG for winter crop production.
NCR 014	LNC17-396	E	Honey Bees on the Farm: Connecting Women Beekeepers and Farmers for Environmental and Economic Benefit	Starkweather	Center for Rural Affairs	NE	\$200,000	Integrated Crop & Livestock System	Other	This project uses a learning circle model to train and connect small scale women beekeepers and diversified farmers, addressing plant-pollinator interactions and farming/apiculture practices, network building, and business connections. By working together, small-scale beekeepers and small diversified farmers can improve their knowledge, production, and profitability while protecting environment and bee health; the project will assess these changes.
NCR 006	LNC17-397	R	Organic Transition and Certification: Supporting Indiana Grain Farmers' Capacity to Meet Market Demand	Benjamin	Purdue University	IN	\$194,663	Crop Production	Grain Crops	This project will facilitate Indiana farmers' access to a high value, rapidly growing organic grain market by identifying major constraints, as well as drivers to organic transition and certification. A peer mentoring and outreach component will coordinate farmer-to-farmer interactions to increase knowledge transfer among our farmers and educators. We will improve the economic viability and sustainability of crop farms in Indiana by understanding the communication and marketing gaps between growers and buyers.
NCR 003	LNC17-398	R	Winter Camelina: New cash crop opportunities for sustainable sugar beet production	Wells	University of Minnesota	MN	\$199,999	Crop Production	Oil Crops	This research and education project will demonstrate the agronomic viability of integrating winter annual oilseeds as cash cover crops in conventional sugar beet cropping systems, and will quantify the associated economic and environmental effects. Outreach programming will use networking opportunities for farmers, researchers, and business and industry professionals to learn about Camelina and establish working relationships to develop a functioning supply chain.