

2018 NCR-SARE Research and Education Grant Projects Recommended for Funding

Project #	R or E?	Title	First Name	Last Name	Institution	State	Total Request	Cumulative	Description
LNC18-399	E	Increasing the Sustainable Production and Access of Fresh Produce in Urban Areas of NW Indiana	Tamara	Benjamin	Purdue University	IN	\$199,676	\$199,676	This project intends to increase the capacity to sustainably produce fresh produce in an urban setting through education and training, networking, and resource assistance, while enhancing the competitiveness of urban farmers through increased sales and engaging with local stakeholders.
LNC18-400	R	Treating Small Grains as a Cash Crop: Stepping Up Small Grain Variety Selection for Cornbelt Farmers	Sarah	Carlson	Practical Farmers of Iowa	IA	\$199,817	\$399,493	Leveraging funded small grain variety yield trial research conducted at UW, UofMN, SDSU, NDSU, ISU and UofI we will create and calibrate a genotype by environment prediction model imbedded in a public website that compiles a list of top performing small grain varieties based on the entered zip code. Farmers will plant randomized, replicated trials with 2 varieties recommended from the tool against a local recommendation and share results with other farmers through presentations.
LNC18-401	R	Assessing Soil Fertility and Soil Health in Midwest Hop Production	Steven	Culman	The Ohio State University	OH	\$98,561	\$498,054	This project will study soil fertility and nutrient management in Midwest hop production. Using the five most common hop varieties (determined via grower surveys): Cascade, Centennial, Chinook, Nugget, and Columbus; we will develop best management practices for nitrogen, potassium, and phosphorus in both young (0 – 5 years) and mature (5+ years) plants. Results comparing fertilizer rates and application methods and soil and tissue testing will be used to develop a Managing Hop Fertility guide.
LNC18-402	R	A decision support tool for adaptive management of cereal rye in no-till organic and conventional soybeans	Martin	Williams	USDA Agricultural Research Service	IL	\$199,507	\$697,561	A new decision support tool will help farmers use cereal rye cover crops to more successfully achieve adaptive management objectives by modeling rye phenology and biomass as a function of planting window, rye cultivar and local environment.
LNC18-403	E	Community College Alliance for Agriculture Advancement (C2A3): Regionally-Specific and Collaborative Educational Approaches to Promote Sustainable Soil Health Practices	Vicki	Jeppesen	Northcentral Technical College	WI	\$200,000	\$897,561	Nine community/technical colleges partnering will teach producers and agriculture students about profitability, sustainability, and productivity of regionally-specific soil management recommendations. These colleges have an existing alliance focused on soil health; this would support their goal of increasing awareness, knowledge and skills about sustainable soil health practices for producers such as farmers and ranchers.
LNC18-404	R	Optimizing mesotunnel systems for sustainable production of cucurbit crops	Mark	Gleason	Dept. of Plant Pathology and Microbiology	IA	\$193,962	\$1,091,523	In 2 years of field experiments in Iowa, we will adapt mesotunnels, a new full-season protective system, for commercial-scale muskmelon production and compare its profitability to current systems. On-farm trials and field days in Iowa and Missouri, as well as electronic outreach, will spread the project's messages to cucurbit growers throughout the Midwest.
LNC18-405	R	Using native rhizobia to create a drought-resilient field pea production system	Christopher	Graham	South Dakota State University	SD	\$199,813	\$1,291,336	This project will examine the ability of native rhizobia to fix nitrogen in field peas during drought stress

LNC18-406	R	Intercropping the perennial grain Kernza® with legumes for sustained economics and environmental benefits	Jacob	Jungers	University of Minnesota	MN	\$199,946	\$1,491,282	We will evaluate four legumes, each grown in biculture with Kernza, to determine which legume is most compatible as an intercrop to provide nitrogen to the Kernza grain crop, enhance soil health, and sustain Kernza grain yield through time.
LNC18-407	R	Midwestern Initiative to Discern and Overcome Identity-Based Barriers to Adopting Regenerative Practices in Commercial Grain Farming	Mallory	Krieger	The Land Connection	IL	\$197,909	\$1,689,191	This project aims to better understand the identity-based barriers to the adoption of regenerative practices in commercial grain production and to assist stakeholders in addressing these barriers in their educational and outreach programs.
LNC18-408	R	Biological Approaches to Sustainable Mint Production	Petrus	Langenhoven	Purdue University	IN	\$199,994	\$1,889,185	The project will characterize current mint cultural practices to identify key factors contributing to Verticillium wilt and evaluate alternative approaches to more sustainably manage this disease and ensure the long-term economic success of the Midwest mint industry.
LNC18-409	R	Redefining the Field Edge	Mark	Licht	ISU, Conservation Learning Group	IA	\$199,351	\$2,088,536	The project team will partner with five farmers to demonstrate and evaluate the feasibility and profitability of planting farmed potholes/depressional areas to perennial vegetation, assessing the related agronomic, economic, water quality, soil health, and wildlife implications of each.
LNC18-410	R	Dynamics of Dung Invertebrate Communities, and Their Contributions to Profitability in Regenerative Rangelands	Jonathan	Lundgren	Ecdysis Foundation	SD	\$200,000	\$2,288,536	Dung degradation rates by insect communities will be examined in regeneratively and continuously grazed rangelands, as will the effects of plant diversity on these dynamics. The economic value of dung degradation for ranchers will be determined.
LNC18-411	R	Cover Crop Management Options to Improve Weed Control, Crop Yield and Soil Health	Augustine	Obour	Kansas State University	KS	\$199,820	\$2,488,356	This project will investigate different CC management strategies (grazing, haying, or growing CC solely for cover) to enhance crop production and profitability in dryland cropping systems in the CGP. Also determine the potential effects of CC management on crop yields, weeds and soil health.
LNC18-412	R	Whole System Approach to Integrated Crop/Livestock Production to Enhance Soil Health and Profitability of Cropping and Livestock Systems in the Northern Great Plains.	Michael	Ostlie	NDSU-CREC	ND	\$199,995	\$2,688,351	This project evaluates seeding cover crops into cropping systems for calf backgrounding and fall and winter grazing as alternatives to confinement. Aerial seeding of cover crops into standing crop and grazing will be evaluated on farmer-cooperator farms. Soil health, nutrient cycling, and net returns from grain and beef production will be determined. Awareness will be through cooperator farm tours, farm walks, field days/workshops, social media, and willingness to adopt surveys.
LNC18-413	R	Enhancing Healthfulness and Demand of Upper Midwestern, Locally Produced Beef	Jason	Rowntree	Michigan State University	MI	\$199,149	\$2,887,500	This project investigates the Michigan local beef value chain and how finishing systems impact beef quality and healthfulness. Sensory panels, budgets, surveys and focus groups will inform value chain segments, create decision tools and increase beef supply.

LNC18-414	E	From the Earth	Kellie	Zahn	Stockbridge-Munsee Community	WI	\$131,676	\$3,019,176	"From the Earth" is a community project designed to increase the number of produce farmers in the area and teach sustainable agricultural practices by providing a means to reconnect to the environment. This project will feature a hands-on educational space where farmers will learn how to implement sustainable agriculture practices on their farms by demonstrating sustainable vegetable production techniques, soil conservation practices, and creating a pollinator habitat for honeybees.
-----------	---	----------------	--------	------	------------------------------	----	-----------	-------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------