	2021 NCR-SARE Research and Education Grant Projects Recommended for Funding								
Project #	Focus	Title	Principle Investigator	Primary Grantee	State	SARE \$\$ requested	Cumulative	Brief Description	
LNC21-445		Improving watershed health, wildlife habitat, and ranch profitability: education and demonstration of low-cost, low-tech riparian restoration tools	Krista Ehlert	South Dakota State University	SD	\$246,721	\$ 246,721	This project focuses on using low- cost, low-tech tools such as beaver dam analogs (BDAs) to help restore critical prairie streams and improve livestock forage production and wildlife habitat at landscape scales.	
LNC21-446		Increasing Climate Resilience Among Refugee & Immigrant Farmers in Kansas City and Beyond	Semra Fetahovic	Cultivate KC	МО	\$235,004	\$ 481,725	Cultivate KC aims to increase the climate resilience of refugee & immigrant farmers by providing education, training, and access to low-cost and shared supplies to support season extension, climate change adaptation & planning, improved pest, weed, and irrigation management.	
LNC21-447		Identifying and Incorporating Fair Labor and Fair Pricing on Sustainable Farms in the North Central Region	Carol Goland	Ohio Ecological Food and Farm Association	ОН	\$249,547	\$ 731,272	This project advances social components of sustainable agriculture by attending to the interrelated issues of fair labor and fair pricing through education and technical assistance for farmers.	
LNC21-448		Addressing honey bee health challenges in Minnesota through providing colony assessment tools and education for beekeepers	Katie Lee	University of Minnesota	MN	\$250,000	\$ 981,272	This project will provide Minnesota beekeepers with the education and tools they need to assess honey bee colony health and make informed management decisions.	
LNC21-449	,	Communities of Practice and Farmer Led Training for Increased Sustainability of Refugee & Immigrant Farms in the North Central Region	Nicholas Wuertz	Lutheran Services in Iowa	IA	\$250,000	\$1,231,272	The project will increase sustainable practices to improve outcomes among New American farmers and build a regional community of practice for training farms.	

LNC21-450	R	Assessing tradeoffs of grassland management approaches with collaborative adaptive management	Craig Allen	Center for Resilience in Agricultural Working Landscapes	NE	\$247,011	In a collaborative, learning-by- management approach, we will develop and refine a results framework in a low-risk environment which managers can use to assess tradeoffs among various services and disservices.
LNC21-451	R	The Effects of Wheat Stem Characteristics and Wheat Stem Sawfly Infestation on Yield, Residue Longevity, Soil Water, and Soil Health	Cody Creech	University of Nebraska-Lincoln	NE	\$250,000	This project evaluates if wheat residue longevity can be improved by using solid- or semi-solid stemmed wheat varieties and if these improvements are mitigated in the presence of wheat stem sawfly. Improved residue persistence can enhance soil water content and the subsequent crop yield
LNC21-452	R	Developing and Promoting Woodland Pawpaw Production Practices to Improve Fruit Yield and Quality	G. Matt Davies	The Ohio State University	ОН	\$249,846	This project investigates critical controls on the productivity and quality of pawpaw fruit from woodland stands. The project will dissmeninate practices to improve yields to help meet rapidly growing demand for pawpaw products. Outcomes will enhance farmer incomes and strengthen local economies.
LNC21-453	E/O	Match made in heaven: livestock + crops	Erin Meier	University of Minnesota	MN	\$247,740	Engaging diverse farmers in 6 states to understand their needs and goals and develop educational resources and programming to foster reintegration of crop and livestock farming systems.
LNC21-454	R	Enhance Strawberry Production in North Central Region through Tunnel-based Systems	Wenjing Guan	Purdue University	IN	\$250,000	This project intends to optimize production practices for growing strawberries in tunnel systems, and explore sustainable pest management options and increase knowledge of an emerging strawberry disease in the NCR.

LNC21-455	R	Is grass-fed beef from cattle grazing a diverse mixture of plants healthier for consumers?	Scott Kronberg	USDA-ARS	ND	\$248,773	Plant diversity and cover crops improve soil health. We hypothesize that cattle grazing diverse plant mixtures also improves the healthfulness of beef for human consumption.
LNC21-456	R	Can cover crops pay? Unraveling yield enhancement on a wide scale to provide incentive for increased adoption.	James Stute	Michael Fields Agricultural Institute	WI	\$249,942	This on-farm trial will identify cover crop practices which increase yield of the subsequent crop most, adding to the body of data documenting crop yield response to cover crop. It relies heavily on involvement of producer-led watershed groups and has the goal of increased cover crop adoption.
LNC21-457	R	Advancing Spotted-Wing Drosophila Sustainable Management Techniques for Strawberries in Minnesota	Mary Rogers	University of Minnesota	MN	\$249,906	Researcher and grower perspectives on implementing non-insecticidal practices for managing spotted-wing drosophila in strawberries.
LNC21-458	R	Improve the safety and health of women farmers by adapting farm tools and equipment	Jianfeng Zhou	University of Missouri	МО	\$249,995	This project aims to address issues of health and safety for women farmers due to a mismatch between their physical capacity and the demands of farm tools and equipment by presenting education programs and developing simple solutions using ergonomic, engineering and smart technology standards.
LNC21-459	R	A Sustainable Approach to Control Varroa Mites - Improving the Quality of Queens using Local Resources	Hongmei Li-Byarlay	Central State University	ОН	\$249,998	This innovative project aims to promote sustainable apiculture by developing workshops and classes on queen rearing and instrumental inseminations to educate bee farmers and beekeepers, conducting research on the flight ability, stress resistance, and genomic markers of local feral bees.