2022 NCR-SARE Farmer Rancher Grant Projects Recommended for Funding										
Project #	**Type**	**Title**	**PI Name**	**Primary Grantee**	**State**	**$$ Amt**	**Cumulative**	**Practices**	**Commodities**	**Brief Description**
FNC22-1317	Individual	Incorporating a fodder system on a small-scale livestock farm to test the economic viability of reducing winter feed costs for hogs and cattle.	William Alward	Little Mountain Ranch and Garden LLC.	NE	$14,307	$ 14,307	Animal Production	Animals	This project aims to test the economic viability of reducing winter feed costs for hogs and cattle by incorporating a fodder system on a small scale farm. The project will trial multiple fodder seed types to find the best fit for feed supplementation of hogs and cattle.
FNC22-1318	Team	Building the foundation for a dye plant growing cooperative in USDA Plant Hardiness Zone 4	Maddy Bartsch	Salt of the North Dyes	MN	$26,919	$ 41,226	Crop Production	Additional Plants	Creating value-added opportunities for dye plant growing in USDA Plant Hardiness Zone 4 as the foundation for a farmer-owned dye plant cooperative.
FNC22-1319	Individual	Effectiveness of using milk and Korean Natural Farming fungicide techniques vs traditional organic fungicides on powdery mildew	Donnetta Boykin	Endigo's Herbals & Organics	OH	$ 8,099	$ 49,325	Production Systems	Vegetables	This project will examine the benefits and effectiveness of using a milk dilution or a fungicide created based on Korean Natural Farming techniques vs traditional organic fungicide on powdery mildew. The focus will be on prevention and treatment of zucchini and squash plants over a two-year period.
FNC22-1320	Team	Feasibility of Hoop House Technology for Specialty Crops	Angela Dawson	Forty Acre Cooperative	MN	$29,982	$ 79,307	Production Systems	Agronomic	Feasibility comparison of Hoop House Technology vs standard outdoor planting for Specialty Crops. The project explores season extension and soil improvement to support small-scale farmers increase crop productivity, yield, quality, and market value of specialty crops using industrial hemp.
FNC22-1321	Team	Evaluating the Effectiveness of a Science-based, Innovative Winterization System on the Health and Mortality of Honey Bees	Peggy DeSanto	Northwinds BeeCo, LLC	MN	$29,460	$ 108,767	Crop Production	Animals	A research study utilizing an innovative winterization system for honey bee hives in northern climates using thermoregulation principles to create a product that emphasizes efficiency and survivability based on consistent temperature and moisture needs of honey bee colonies.
FNC22-1322	Team	60" Corn	Andrew DeVries	Rose 23 Cattle Co	WI	$29,626	$ 138,393	Animal Production	Agronomic	Grazing cattle on 60" planted corn with cover crops. Mechanically harvesting cover crops post corn silage harvest.
FNC22-1323	Individual	Happy Seedlings, Happy Fish, Happy Family? Achieving All Three Through Function Stacking In An Integrated Seed Starting/Heating/Aquaponics System	Brad Dilts	Serenity Farm	KS	$15,000	$ 153,393	Production Systems	Vegetables	A function stacking approach to seedling development is investigated through integrating a rocket mass heater, aquaponic fish tank, and thin film bottom watering beds. The goals are to improve greenhouse thermal stability and seedling outcomes, provide a new revenue stream, and reduce labor input.
FNC22-1324	Team	Utilization of Worm Tea on Field Scale Trails for Soil Remediation	Stephanie Duncan	Duncan's Worm Farm	IN	$10,370	$ 163,763	Soil Management	Agronomic	This project analyzes the use of worm castings at field scale as fertilizer on both productive and disturbed soils.

FNC22-1325	Individual	Evaluate the Efficiency of Raising Pastured Egg Layers in a Compost Heated Hoophouse Over Winter and Their Influence on Compost Quality	Craig Fischer	Sleepy Bison Acres	MN	$ 9,716	$ 173,479	Production Systems	Animals	Craig Fischer will evaluate the efficiency of raising pastured egg layers in a compost heated hoophouse over winter and their influence on compost quality.
FNC22-1326	Team	Improving Carbon Sequestration through Bale Grazing and Keyline Cultivation	Erin Gaugler	Gaugler Farm and Ranch	ND	$15,861	$ 189,340	Soil Management	Other	Project will demonstrate the use of bale grazing, a winter feeding strategy, and Keyline cultivation to transform water management and promote carbon sequestration.
FNC22-1327	Individual	Scaling up organic botanical production in the Upper Midwest	Delanie Harrmann	So Below Apothecary LLC	MN	$15,000	$ 204,340	Production Systems	Additional Plants	Sustainable production of botanicals with an emphasis on species native to Minnesota. The goal of the project is to create efficiencies relating to growing, harvesting, drying, and processing botanicals for sale and value added products that can be replicated by other small farmers.
FNC22-1328	Team	South Side Family Farms Black Farmer/Heritage Project	Min. Aaron K. Hopkins	ICANDO Community Development	OH	$28,760	$ 233,100	Education & Training	Vegetables	To engage and mentor 5 underserved Black youth in our disadvantaged community and expose them to Black Heritage Farming and the opportunities Agriculture affords them to a quality of life success outcomes.
FNC22-1329	Individual	Promoting farm sustainability with complementary intercropping of English walnut, peaches, and sheep pastureland.	Abby Johnson	Ox Heights	MI	$ 7,539	$ 240,639	Production Systems	Nuts	A sustainable whole-farm system will be demonstrated through a novel intercropping of English walnut, peaches, and livestock.
FNC22-1330	Individual	Mitigating and Eliminating the Impact of Aphids and White Moth Butterflies on Cabbages, Okra and Collards Using Sustainable Agricultural Practices	Ava Johnson	SE Gardens and Farm	OH	$13,279	$ 253,918	Pest Management	Vegetables	SE Gardens and Farm would like to conduct a controlled experiment in order to examine what mix of treatment will eradicate or mitigate the impact of aphids and the white moth butterfly on cabbage, collard greens, and okra using sustainable agricultural practices.
FNC22-1331	Team	Exploring the production costs, utility, and value of by-products in Kernza® perennial grain production	Brandon Kaufman	Brandon and Morgan Kaufman	KS	$29,980	$ 283,898	Production Systems	Agronomic	We will assess and document yields and feed value of straw, hulls, and bran produced in Kernza® perennial grain production, cleaning and milling. We will investigate if ammoniating straw bales or pelletizing hulls increases their feed and economic value.
FNC22-1332	Individual	Comparing fall- and spring-planted row crop to pasture conversion after multiple years of grazed diverse continuous cover crops	Zachary Knutson	Knutson Shorthorns	MN	$15,000	$ 298,898	Animal Production	Animals	Establishing perennial pasture into former row crop land after two years of grazed continuous covers. Summer annuals will be grazed and followed with fall biennial mix. Half the field will be seeded with diverse perennials in the fall, the other half will be interseeded with perennials in the spring.
FNC22-1333	Team	Growing Specialty Crops in "Sacrifice Paddock" after Winter Bale-Grazing	Zachary Knutson	Knutson Shorthorns	MN	$ 8,245	$ 307,143	Crop Production	Vegetables	Specialty crops are started in a greenhouse then planted directly into bale residue left behind by cows from winter-feeding to make use of land that would normally be unproductive for the season. Residue serves as mulch and fertilizer to reduce weeding labor and chemical inputs.

FNC22-1334	Individual	Truffle-Hardwood Orchard Development: A New Agro-Forestry Product for Indiana	Mimi Kokoska	Koko Earth Farms, LLC	IN	$15,000	$ 322,143	Crop Production	Agronomic	This project integrates the expertise of farmers and educators to develop best practices for establishing a burgundy truffle inoculated oak orchard in Indiana and develop associated educational media on soil health, food systems, quality of life, culinary experiences, marketing and tourism.
FNC22-1335	Individual	Mushroom farming without single-use plastic: A simple, low-tech method for family farmers	Maks Kopish	Maks' Mushrooms	WI	$ 3,059	$ 325,202	Production Systems	Other	This grant will explore the viability of low-tech, low-waste mushroom growing using vinegar-pasteurized substrate held in slightly modified reusable buckets. The goal is to make mushroom growing easier and more accessible for small-scale farmers while reducing single-use plastic waste.
FNC22-1336	Team	Expanding Production of African Eggplant in the Red River Valley	Verna Kragnes	Prairie Rose Agricultural Institute for Research, Innovation, & Education	MN	$29,611	$ 354,813	Crop Production	Vegetables	Refugee immigrant farmer members in New Roots Farm Incubator Cooperative seek funding to develop skills in season extension methods, and to launch a valued added enterprise for expanded fresh and seasonal availability of African eggplant, a high value crop of interest in Asian & African communities.
FNC22-1337	Individual	Inspirational Three Sisters Mounds Sunshine Experiment with Sunflowers and Community Seed Distribution in Evansville, Indiana	Lindsey Krantz	Catalpa Tree LLC	IN	$15,000	$ 369,813	Production Systems	Agronomic	3 Sisters intercropping, Indigenous practices, corn, maize, beans, squash, living wage, decent wage, sunflowers, sunshine experiment, community building, food justice, social justice, mounds, circular plantings, farm-to-table potential, seed packing, horizontal seed distribution.
FNC22-1339	Individual	Participatory, Community-Driven Agriculture: A new model for small farms that actively engages customers in the cultivation of food and culture	Weston Lombard	Solid Ground Farm	OH	$14,970	$ 384,783	Education & Training	Vegetables	Solid Ground Farm's new participatory, community-driven agriculture model is an innovative approach to neighborhood food production and guided, hands-on farmer training that engages participants in the growing of their own food while building culture and community around sustainable agriculture.
FNC22-1338	Team	Red Mulberry Search and Rescue: Preserving Genetic Diversity for the Future of Sustainable Agroforestry	Weston Lombard	Solid Ground Farm	OH	$19,437	$ 404,220	Crop Production	Fruits	Our native red mulberry produces delicious, nutritious fruit, however, it is conspicuously absent from farms and orchards and fading from its wild range, replaced instead by the invasive Morus alba and its hybrids. Before it is gone forever, we will find, rescue, and celebrate our native treasure.
FNC22-1340	Individual	Create artisan-in-residence program to further education in value-added agricultural products specific to our remote, ranching community	Eliza (Blue) Loughlin	Plainsong Farm and Fiber	SD	$ 3,905	$ 408,125	Education & Training	Additional Plants	We will create an artisan-in-residence program for short- and long-term residencies. Selection of artisans will focus of craftspeople whose source materials are readily available in our region, with an educational component that will benefit the whole community.

FNC22-1341	Individual	Managing Cropload with the Pollen Tube Growth Model In Organic Apple Orchards	Christopher McGuire	Two Onion Farm	WI	$14,756	$ 422,881	Crop Production	Fruits	We will evaluate the pollen tube growth model as a tool to time spray applications of crop thinning agents to manage cropload in an organic apple orchard and we will share results with other farmers through presentations, an online video, and a written report.
FNC22-1342	Individual	Evaluation of weed suppression between Paper mulch, and straw mulch, and terminated winter cover crop on pumpkins and winter squash.	Miles Mentzer	Mentzer Family Farm	KS	$14,175	$ 437,056	Production Systems	Vegetables	Testing sustainable weed suppression on pumpkins, with paper mulch and straw after a winter cover crop. We want to use a natural mulch vs a plastic mulch so that after harvest it eliminates the need to pull the plastic up and can be left in the field or micro plastics being added to the soil.
FNC22-1343	Individual	Ducks in an Upper Midwestern Vineyard: Managing Pests, Weeds and Grass while Improving Soil Fertility	Kerri Meyer	Good Courage Farm	MN	$13,114	$ 450,170	Production Systems	Animals	Using portable fencing, housing, and water, dual-purpose ducks are rotationally grazed in a small-scale vineyard. Measurable outcomes include reduced pest and weed pressure, reduced fuel and hours spent mowing, and improved soil fertility. Egg and meat sales offset flock management costs.
FNC22-1344	Team	A Workers Cooperative Food System Approach to Climate Resilience	Beth Neff	MARSH	MO	$29,120	$ 479,290	Sustainable Communities	Vegetables	The MARSH Cooperative seeks to develop strategies for climate resilience in a vulnerable low-income neighborhood through a cooperative approach to sustainable food production that supports the community economically while exploring innovations in climate-responsive urban agriculture methods.
FNC22-1345	Team	Microalgae application as a soil amendment to improve soil health, crop production, and water management	Alex Peterson	RJPage CO	NE	$29,586	$ 508,876	Crop Production	Agronomic	Microalgae Chlorella will be applied as a soil amendment to clover and alfalfa crops to measure soil health, biomass production, and moisture retention. As a team project, enhanced crops will be used separately in pollination and beef herd daily rations to improve sustainable agricutural practices.
FNC22-1346	Individual	Small-scale Microgreen farming as a pathway out of poverty	Tom Phillips	StarkFresh	OH	$15,000	$ 523,876	Production Systems	Other	Using existing resources to start a small-scale, indoor microgreen farm for people wanting to have urban agricultural employment when living in poverty and cannot easily find work.
FNC22-1347	Individual	Low-cost Farm-made Indigenous Soil Microbial Inoculant: Yield Impact on High Tunnel Grown Tomatoes	Kevin Prather	Mellowfields Farm	KS	$ 7,704	$ 531,580	Soil Management	Vegetables	We will be looking at how the yield of high tunnel tomatoes are affected by the use of a farm-made indigenous soil microbial inoculant similar to Korean Natural Farming methods, but simpler and cheaper to implement using locally sourced ingredients.
FNC22-1348	Team	Wide Row Cover Crop Demonstrations for Soil and Water Quality Improvement	Bob Recker	Cedar Valley Innovation LLC	IA	$28,870	$ 560,450	Production Systems	Agronomic	Cover Crops have shown excellent response to additional sunlight provided by wider than normal corn row spacing. This grant enables expansion of my work to demonstrate the benefits to soil and water quality on grower fields beyond my own plot fields for my experience as well as other growers.

FNC22-1349	Team	Everybody Grows	Girard Sagmiller	The Gifted Learning Project	KS	$29,997	$ 590,447	Sustainable Communities	Vegetables	This grant will assist special needs beginning farmers to roll out direct sales to chefs, and community of heirloom vegetable varieties using sustainable methods. Seeds saving and collecting the seeds the beginning farmers will grow out several varieties and sell the heirloom open non-gmo seeds.
FNC22-1350	Individual	Community Gardening with Chickens & Littles	Scarlett Salamone	Loveland Acres Farm	WI	$16,186	$ 606,633	Education & Training	Vegetables	This project will use hands on learning activities to connect marginalized little ones and their families to a community garden, providing mutual aid shares, that utilizes sustainable practices for growing culturally relevant crops while integrating chickens hatched by families for pest management.
FNC22-1351	Individual	Developing standardized procedures to increase production of saleable yellow perch fingerlings year-round	Annie Schmitz	The Farmory	WI	$18,651	$ 625,284	Animal Production	Animals	Refining The Farmory's commercial percid hatchery to produce more saleable yellow perch and share practices with current and future aquaculturists.
FNC22-1352	Individual	Establish a system of composting to produce local sustainable agricultural inputs	Bailey Scott	Sun Sprout Farm	MN	$14,725	$ 640,009	Soil Management	Agronomic	Compost materials will be gathered from the community and neighboring farms to be piled and processed to create local sustainable agricultural inputs.
FNC22-1353	Individual	Feeding Families by Farming	Anjulette Smith	North Kansas City YMCA	MO	$ 3,790	$ 643,799	Sustainable Communities	Vegetables	The funds would ensure that the Urban Farm would continue to be a sustainable resource for many individuals facing food insecurity. We would like to continue serving our community by expanding the farm so we can produce more food to serve more people.
FNC22-1354	Team	Accelerating Soil Health and Farm Profitability using Biological Amendments	Jeff Steffen	Jeff Steffen	NE	$29,864	$ 673,663	Production Systems	not commodity specific	This project will evaluate if the economic, environmental and social benefits of soil health systems can be accelerated by the addition of biological amendments.
FNC22-1355	Individual	This project will test the efficacy of using compost, as a mulch and weed suppressor, in small-scale no-till vegetable production.	Jonathan Stensgard	Pine Creek Farms LLC	MN	$15,000	$ 688,663	Production Systems	Vegetables	Pine Creek Farms will design and create a Self-Loading Compost Spreader to utilize compost as a mulch and weed suppressor in an ergonomic way, promoting better yields, profits, and soil structure, while decreasing manual labor and the use of tillage.
FNC22-1356	Team	A Citizen Science Approach to Building Multiple Johnson-Su Bioreactors to Increase Soil Health, Vegetable Nutrient Density and Urban Food Sovereignty	Ryan Tenney	Sankara Farm LLC	MO	$29,619	$ 718,282	Sustainable Communities	not commodity specific	Initiating a Community Soil Science Cooperative (CSSC) that raises awareness of soil ecology using Art, produces compost, and provides access to research tools.
FNC22-1357	Individual	Cover Crop Prescribed Burning and Nutrient Profile	Ana Timmer	The Cornucopia	IA	$11,743	$ 730,025	Production Systems	Vegetables	Prairie fires, both natural and prescribed, are used for a variety of reasons including changing the nutrient profile of the soil. Cover crop burning may add the correct balance of nutrients into the soil and reduce the need for compost or other soil additives.

FNC22-1358	Individual	Cultivating mushrooms and producing soil amendments using underutilized waste materials to increase profitability in an agroforestry system.	Alexis Weintraub	Zumwalt Acres	IL	$15,000	$ 745,025	Crop Production	Other	This project builds capacity for commercial scale production of oyster mushrooms, and facilitates the effective processing of spent mushroom substrate into vermicompost. Vermicompost can be combined with biochar, also produced on site, to generate a high-value soil amendment.