

2020 North Central Farmer Rancher Grant Projects Recommended for Funding

Project #	Title	PI Name	Primary Grantee	State	\$\$ Amt Funded	Cumulative	Practices	Commodities	Brief Description
FNC20-1204	Intensive No-Till Vegetable Soil Preparation in Organic Systems	Andrew Adamski	Full Circle Farm	WI	\$ 8,005	\$ 8,005	Crop Production Production Systems Soil Management	Vegetables	This project explores the soil health effects of subsoiling, as a scaled-up substitute for broadforking, and power harrowing compared to rototilling.
FNC20-1205	A Single-Row Mechanical Nut Planter for Nut and Hardwood Plantations	Zachary Alexander	Green Hills LLC	WI	\$ 8,892	\$ 16,897	Crop Production Natural Resources/Environment	Additional Plants (herbs, native plants, ornamentals, trees) Nuts Other	We will design and build a tractor-pulled single-row nut planter for planting nut and hardwood plantations from seed. It will handle a variety of nut species.
FNC20-1206	Using Actively Aerated Compost Tea in Organic Vegetable and Fruit Production	Stephanie J. Bartel	Old Plank Farm LLC	WI	\$ 17,262	\$ 34,159	Crop Production Soil Management	Fruits Vegetables	We'll trial Dr. Elaine Ingham's Actively Aerated Compost Tea to determine if it can replace fertilizer and pesticides in organic vegetable and fruit production.
FNC20-1207	Improving oxygen transfer in a Recirculating Aquaculture System, to increase production and promote the sustainability of raising tilapia	Traci Bell	Ripple Rock Fish Farms LLC	OH	\$ 26,990	\$ 61,149	Animal Production	Animals (includes bees, fish)	Innovative idea to cost-effectively improve oxygen transfer in Recirculating Aquaculture; thereby increasing production, energy efficiency and profitability.
FNC20-1208	Quantifying the capacity of Wine Cap mushroom cultivation to enhance soil health, improve vegetable crop value and increase farmer profitability	Lindsey Bender	Field & Forest Products	WI	\$ 9,000	\$ 70,149	Crop Production Education & Training Production Systems Soil Management	Other Vegetables	Using mushrooms to improve soil health, crop productivity and nutrient density critical to sustainable food production through a hands-on approach with farmers.
FNC20-1209	Simultaneous Interseeding of Corn and Cover Crops at Various Row Spacings	Andrew Bowman	Bowman Farm	IL	\$ 18,000	\$ 88,149	Crop Production	Agronomic	To investigate feasibility of simultaneous planting of corn and cover crops across various row widths for no-tillage, strip-tillage, and organic systems.
FNC20-1210	Curriculum introducing drones as cost effective tools for improved efficiency in ecologically and socially responsible management of livestock	Robert Braun	Pigeon River Farm	WI	\$ 8,980	\$ 97,129	Animal Production Education & Training	Animals (includes bees, fish)	A two hour curriculum module will introduce drones as cost-effective tools for improved efficiency in ecologically and socially responsible management of livestock.
FNC20-1211	Growing Seedlings and Skills for Agroforestry: Integration of woody seedling and annual vegetable production	Jessica Burns	Kelly's Working Well Farm	OH	\$ 8,988	\$ 106,117	Crop Production Education & Training Production Systems	Additional Plants (herbs, native plants, ornamentals, trees) Vegetables	This project explores intercropping bare root woody seedlings and annual vegetables within an educational farm nursery to promote and advance agroforestry.
FNC20-1212	Traditional Tribal Growing Practices for Integrated Pest Management	Daniel Cornelius	Member of Oneida Nation of Wisconsin	WI	\$ 27,000	\$ 133,117	Crop Production Education & Training Natural Resources/Environment Pest Management Production Systems Soil Management Sustainable Communities	Additional Plants (herbs, native plants, ornamentals, trees) Agronomic Vegetables	Applying traditional Native American growing practices for improved crop productivity, increased ecological diversity, and decreased labor and nutrient inputs.

FNC20-1213	Feasibility of Solar Grazing in Minnesota: Co-locating Sheep and Solar for Economic Viability and Environmental Benefit	Arlo Cristofaro-Hark	Cannon Valley Graziers, LLC	MN	\$ 8,683	\$ 141,800	Animal Production Energy	Animal Products (includes honey) Animals (includes bees, fish)	This project will study the economic viability and environmental impact of using sheep for vegetation management on a utility scale solar energy installation.
FNC20-1214	Utilizing living mulch in organic corn production	Jared Crum	Rick and Peggy Crum	IN	\$ 7,862	\$ 149,662	Crop Production Natural Resources/Environment Production Systems Soil Management	Agronomic	This project will compare yields of organic corn produced within a clover living mulch system versus organic corn yields in a conventional tillage system.
FNC20-1215	Beetle Bank Installation and Education on Matthew 25's Cultivate Hope Urban Farm	Zach D'Amico	Matthew 25	IA	\$ 9,000	\$ 158,662	Education & Training Pest Management	Vegetables	Beetle banks will be installed in crop growing areas to reduce pest and weed pressure and provide education for students, community members, and other farmers.
FNC20-1216	Use of fresh comfrey to substitute 20% of the total diet (base of corn and soy) of broiler chickens raised under a system of regenerative production	Wilber De La Rosa	Main Street Project Farm	MN	\$ 26,736	\$ 185,398	Animal Production Production Systems	Additional Plants (herbs, native plants, ornamentals, trees) Agronomic Animals (includes bees, fish)	By substituting corn and soy with comfrey in chicken feed, we anticipate that the chickens will thrive while costs are reduced, thereby increasing profitability.
FNC20-1217	Investigating the Biodynamic Production of American Heritage Grapes	Gerard Eisterhold	Vox Vineyards, Inc.	MO	\$ 18,000	\$ 203,398	Production Systems	Fruits	Vox Vineyards, Inc. is evaluating biodynamic soil management practices, including the use of soil amendments and cover crops, on native grape varieties.
FNC20-1218	Multi-Species Bale Grazing to Build Soil Health	Erin Gaugler	Gaugler Farm and Ranch	SD	\$ 18,000	\$ 221,398	Animal Production Education & Training Soil Management	This project is not commodity specific or doesn't apply to commodities	Project will demonstrate impacts of multi-species bale grazing and the development of an ecologically sound, profitable, and socially responsible operation.
FNC20-1219	Exploring Flavor and Yield of Heirloom Corn Varieties for Spirit Production	Will Glazik	IDEA Farm Network	IL	\$ 17,530	\$ 238,928	Crop Production Farm Business Management	Agronomic	This project will assess five unique corn varieties for flavor and efficiency in spirit production as compared to the flavor and efficiency of yellow dent corn.
FNC20-1220	Near Northeast Community Supported Agriculture Program	Danielle Guerin	Soul Food Project	IN	\$ 7,525	\$ 246,453	Education & Training Farm Business Management Sustainable Communities	Vegetables	This project will determine how best to market organic produce in a low income community.
FNC20-1221	Exploring the use of compost & biochar as both soil amendments and as heat sources to extend the growing season inside high-tunnels on the Pine Ridge	Patricia Hammond	Rebel Earth Farms	SD	\$ 27,000	\$ 273,453	Education & Training Production Systems Soil Management Sustainable Communities	Additional Plants (herbs, native plants, ornamentals, trees) Fruits Vegetables	Heating High-Tunnels, utilizing waste heat from compost, two 55 gal. steel drum wood barrel stoves (inside the high-tunnels) and from biochar generation.
FNC20-1222	Evaluating soil media for vertical hydroponic strawberry production	Joseph Hannan	Roscommon Berry Farm	IA	\$ 6,521	\$ 279,974	Production Systems	Fruits	Our project will evaluate hydroponic media when growing strawberries in vertical towers for ease of filling pots and for minimizing nutrient deficiencies.

FNC20-1223	Biosolarization For Disease and Weed Control For Winter High Tunnels	Jason Hirtz	Box Turtle Farm LLC	MO	\$ 9,000	\$ 288,974	Crop Production Pest Management	Vegetables	Using grass clippings for biosolarization in high tunnels and comparing TIF plastic and greenhouse film to control winter weeds and diseases for lettuce crops.
FNC20-1224	Evaluating Pasture Climate Resilience Utilizing Wild Forb and Insect Biodiversity Related to Changing Soil Health	Susan Jaster	Lincoln University Cooperative Extension-Innovative Small Farmers Outreach Program	MO	\$ 25,516	\$ 314,490	Animal Production Soil Management Sustainable Communities	This project is not commodity specific or doesn't apply to commodities	We evaluate the wild forb and insect biodiversity and abundance related to change in soil health on farms newly and historically using regenerative practices.
FNC20-1225	Red Kidney Bean production in Kansas	Jake Johannes	Johannes Family Farms & Sacred Sun Cooperative Farm	KS	\$ 1,400	\$ 315,890	Production Systems	Other	Expanding research on an organic system for growing red kidney beans that increases yield, minimizes tillage and labor, conserves water, and discourages weeds.
FNC20-1226	Building a Custom Trailer to Increase Market Exposure, Profitability, and Educational Outreach for Urban Produce and Free-Range Egg Farmers	David Keber	Omaha's High Ground: A Healthy Market Garden	NE	\$ 8,998	\$ 324,888	Animal Production Education & Training Farm Business Management Sustainable Communities	Animal Products (includes honey) Fruits Vegetables	Funds will be used to expand our customer base through the construction of a produce and egg sales trailer that will capitalize upon a high traffic area.
FNC20-1227	Agroforestry Based Control for Cedar-Apple Rust Disease and Browsing Deer in Organic Apple Orchards	Dan Kelly	Blue Heron Orchard	MO	\$ 8,968	\$ 333,856	Pest Management	Agronomic Fruits	Controlling cedar apple rust disease and whitetail deer bud browsing and apple eating. On-Farm harvested eastern cedar trees for fence can control both.
FNC20-1228	Economical sustainable weed control options for small farms with alkaline	Alyssa Knecht	Farm in the Dell of the Red River Valley	MN	\$ 4,947	\$ 338,803	Crop Production Production Systems	Vegetables	Comparing affordable weed control options for small farms when used with soil amendments.
FNC20-1229	Japanese Quail as Organic Pest Control in Trap Cropping System	Dan Krull	Cultivate K.C.	MO	\$ 7,215	\$ 346,018	Animal Production Crop Production Education & Training Natural Resources/Environment Pest Management Production Systems Soil Management Sustainable Communities	Animal Products (includes honey) Animals (includes bees, fish) Fruits Vegetables	We use coturnix quail as an alternative to pesticide and replanting with the accessory benefit of providing eggs, meat and fertility in a trap cropping system.
FNC20-1230	Medicinal Root Production for Small Scale Agriculture	Jessica Layton	Sacred Sun Farm	KS	\$ 3,370	\$ 349,388	Crop Production	Additional Plants (herbs, native plants, ornamentals, trees)	An investigation of how the mechanization of organic medicinal root production can help diversify crops and profit in Midwestern small scale agriculture.
FNC20-1231	Developing a market for locally-adapted organic fruiting plants in St. Louis	Matt Lebon	Custom Foodscaping	MO	\$ 17,564	\$ 366,952	Education & Training Farm Business Management Production Systems	Fruits Nuts	Developing a market for locally-adapted organic fruiting plants in St. Louis by increasing education and accessibility.
FNC20-1232	Market Allergy-Friendly Food Using Local Vegetables, Fruit, Proteins, and Value-added Products to Increase Small Farm Sales	James Leek	Pat & Rachel's Gardens	KS	\$ 27,000	\$ 393,952	Farm Business Management	This project is not commodity specific or doesn't apply to commodities	Parents and institutions are struggling to meet the dietary needs of their children and clients with food allergies. Small farms can help solve this problem.

FNC20-1233	Organic IPM for Swede Midge on Small-Scale, Diversified Vegetable Farms	Sarah Longstreth	Good Stead Farm	MI	\$ 7,604	\$ 401,556	Crop Production Pest Management Production Systems	Vegetables	This project seeks to identify effective IPM solutions for Swede Midge in the context of small-scale, certified organic vegetable production.
FNC20-1234	Development of an integrated ventilation, thermal mass, and lighting system for the first Deep Winter Greenhouse (DWG) in North Dakota	Derek Lowstuter	Folly Hill Farm	ND	\$ 8,980	\$ 410,536	Crop Production Education & Training Energy Natural Resources/Environment Production Systems	Additional Plants (herbs, native plants, ornamentals, trees) Vegetables	The project demonstrates and develops an integrated system to address heating/cooling, air exchange, humidity, and lighting needs for passive solar greenhouses.
FNC20-1235*	Strengthening the Heart of Omaha Youth-Led Vacant Lot Transformation for Urban Agriculture	La Sonya Luther		NE	\$ 9,000	\$ 419,536	Education & Training Natural Resources/Environment Production Systems Sustainable Communities	This project is not commodity specific or doesn't apply to commodities	This pilot project provides youth with hands-on experiences and educational support to explore farming and sustainable landscape design in an urban setting.
FNC20-1236	Honey bee breeding program designed for the commercial beekeeping industry to provide sustainable breeding stock using artificial insemination.	Megan Mahoney	MaHoney Bees and Queens LLC	ND	\$ 9,000	\$ 428,536	Crop Production	Animals (includes bees, fish)	Develop a viable breeding population of the specialized subspecies of Carniolan honey bees using artificial insemination to produce sustainable breeding stock.
FNC20-1237	Impact of Commercial Fungal Inoculant on Tomato Yield and Disease Resistance in Deep Composted Raised Beds	Shannon McBride	Liberty Prairie Foundation	IL	\$ 8,907	\$ 437,443	Crop Production	Vegetables	Our project will look at the impact of commercial fungal inoculant on yield and disease resistance in tomatoes planted within deep composted raised beds.
FNC20-1238	Organic Apple Production In High Tunnels	Christopher McGuire	Two Onion Farm	WI	\$ 9,000	\$ 446,443	Production Systems	Fruits	I will evaluate high tunnel organic apples as a new farm enterprise by measuring yields, costs, and pest and disease incidence on seven apple varieties.
FNC20-1239	Improving Accelerated Lambing System through Data Management	Christine Morrow	Rocky Knob Farms of Ohio	OH	\$ 8,489	\$ 454,932	Animal Production Farm Business Management	Animals (includes bees, fish)	Focuses on keeping detailed records of every ewe including birthing information, rate of gain, lambs born, etc. allowing us to make better management decisions.
FNC20-1240	Controlling Japanese Beetles in a Vineyard with a Drone Pesticide Sprayer	Jerome Natzel	IFM Brands	MN	\$ 8,988	\$ 463,920	Pest Management	Fruits	The goal of this research is to prove that an agricultural drone sprayer is an affordable and effective solution to control the Japanese beetle in a vineyard.
FNC20-1241	Revisiting Farm Diversification through Trout and Walleye Food Fish	Carolyn Orr	Strawridge Farm	IN	\$ 8,932	\$ 472,852	Animal Production Production Systems	Animals (includes bees, fish)	NA
FNC20-1242	Scaling up on-farm drying equipment for Elderflower and other perennial herbs in the Upper Midwest.	Wyatt Parks	Main Street Project Research and Demonstration Farm, LLC	MN	\$ 17,726	\$ 490,578	Farm Business Management	Additional Plants (herbs, native plants, ornamentals, trees)	Create replicable forced-air drying equipment to meet existing unmet demand for dried elderflower and other dried perennial herb wholesale markets.
FNC20-1243	Mushroom cultivation as a way to get out of poverty	Tom Phillips	StarkFresh	OH	\$ 9,000	\$ 499,578	Education & Training Production Systems Sustainable Communities	Other	Using existing resources to start a mushroom farm for people wanting to have urban agricultural employment when living in poverty and cannot easily find work.

FNC20-1244	Low Stress Livestock Management Hands-On Skill Building workshops	Denice Rackley	Clearfield Stockdogs and Lamb	IN	\$ 25,275	\$ 524,853	Animal Production Production Systems Sustainable Communities	Animals (includes bees, fish)	Hands-on skill workshops with added newsletters to increase the knowledge and gain proficiency in low-stress handling of livestock, with and without stockdogs.
FNC20-1245	Creative Solutions to Reverse Indianapolis' Healthy Food Accessibility Trends	Joyce Randolph	The Elephant Gardens	IN	\$ 23,648	\$ 548,501	Crop Production Education & Training Farm Business Management Production Systems Soil Management Sustainable Communities	Additional Plants (herbs, native plants, ornamentals, trees) Animal Products (includes honey) Animals (includes bees, fish) Fruits Vegetables	Our innovative plan involves the establishment of a Mobile Food Farmacy, A Health and Beauty Bodega and nutrient-rich soil to grow more nutrient-dense produce.
FNC20-1246	Permaculture Design Training for Urban Youth Farm Design Plan	Julie Rappaport	SLP SEEDS	MN	\$ 9,000	\$ 557,501	Education & Training Farm Business Management Natural Resources/Environment Pest Management Production Systems Soil Management Sustainable Communities	Other This project is not commodity specific or doesn't apply to commodities	Providing a Permaculture Design Course will develop an Educational Urban Youth Farm plan teaching and engaging youth and community members in its development.
FNC20-1247	INCREASING UTILITY OF NATIVE STANDS OF PERSIMMONS	Matthew Renkoski	Southwind Farms	MO	\$ 8,335	\$ 565,836	Crop Production	Fruits	This project is designed to test/demonstrate ability to graft improved varieties of persimmons to already existing larger native persimmon seedlings.
FNC20-1248	Organic No-till in Perennial Cover	James Ryan	owner	ND	\$ 8,826	\$ 574,662	Crop Production	Agronomic	A no-till planter is used to seed annual grain for harvest into a diverse species, low growing perennial cover.
FNC20-1249	Evaluating raised-bed, no-till vegetable production systems for farm profitability, efficiency, and resilience	Jordan Scheibel	Middle Way Farm, LLC	IA	\$ 17,977	\$ 592,639	Production Systems Soil Management	Vegetables	Exploring the feasibility of transitioning to raised-bed, no-till production from a tractor-tillage system on two small organic Iowa vegetable farms.
FNC20-1250	Cultivation of Organic Tea in Missouri, With Focus On Low-Cost Overwintering Methods	Drew Scott	Scott's Baked Goods	MO	\$ 8,995	\$ 601,634	Crop Production Energy Pest Management Production Systems	Additional Plants (herbs, native plants, ornamentals, trees)	Determining the feasibility of year-round cultivation and harvesting of camellia sinensis as a specialty crop in mid-Missouri.
FNC20-1251	Forcing Belgian Endive and Treviso Radicchio in The Upper Midwest	Peter Skold	Waxwing Farm	MN	\$ 4,945	\$ 606,579	Crop Production	Vegetables	We will investigate the viability of growing and forcing Belgian endive and Treviso radicchio as a means to increase late-season crop diversity.
FNC20-1252	Understanding the willingness of farms to utilize lung scanning in their cattle operations	Tabitha Steckler	Hunley Creek Heifer Farm	IN	\$ 26,745	\$ 633,324	Animal Production	Animals (includes bees, fish)	Using lung scanning to detect respiratory disease in cattle operations will help farms increase sustainability and profitability.

FNC20-1253	Sustainable Silvopasture Hog Production Compared to Drylot System	Travis Stumpf	Grain Place Foundation	NE	\$ 9,000	\$ 642,324	Animal Production Education & Training Natural Resources/Environment Soil Management	Animals (includes bees, fish)	Silvopasture hog production can increase and diversify income on crop/livestock farms, using quality pasture with by-products from on-farm grain processing.
FNC20-1254	Local Grains and Fruit for Adjunct Use in Craft Breweries	Noreen Thomas	Doubting Thomas Farms	MN	\$ 26,858	\$ 669,182	Crop Production Education & Training Farm Business Management Natural Resources/Environment Production Systems Soil Management Sustainable Communities	Agronomic Fruits Other	Producing local grains and fruit to research what crops are suitable adjuncts for the craft breweries while increasing market opportunity for farmers.
FNC20-1255*	The Organic Production of Traditional Crops by Mixteco Farmers	Filiberto Villa-Gomez	Michigan Food & Farming Systems-MIFFS	MI	\$ 9,000	\$ 678,182	Crop Production	Vegetables	This project will increase the production of traditional agricultural products; tomatillo, squash, garlic, beans, and hot peppers using organic practices.
FNC20-1256	Growing Camelina (Camelina sativa) in Western South Dakota	Jennifer Walker	Walker Farm	SD	\$ 9,641	\$ 687,823	Crop Production	Agronomic	This project will explore the suitability and potential benefits of Camelina sativa in sustainable agricultural practice on western South Dakota farms.
FNC20-1257	Producing Ground Cherries with a "Hillside Growing System" to increase production for selling fresh fruit and added value products.	Christine Williams	Pepper Berries Urban Farm & Agape Grow Education Center	MO	\$ 23,648	\$ 711,471	Crop Production Education & Training Production Systems Sustainable Communities	Fruits	Growing Ground Cherries with "Hillside Growing System" to increase production, lower physical activity, control soil disease, provide higher nutrition.
FNC20-1258	Midwest Summer Greens Production - The Effect of Shade on Yield and Quality	Emily Wright	Small Farm Systems LLC	MO	\$ 6,565	\$ 718,036	Crop Production Farm Business Management Production Systems	Vegetables	This project seeks to develop optimal conditions for the production of fresh salad greens in a challenging climate - the hot, humid summers of the Midwest U.S.