

Sustainable Agriculture Research & Education

FIELD NOTES

Developing Michigan's Local, Pasture-Based, Beef Production System

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Whether it's on dinner tables, in restaurants, in schools, or at markets, consumers are seeking more local food. More than 167,000 U.S. farms produced and sold local food through direct marketing in 2015, representing \$8.7 billion in revenue (USDA-NASS, 2015 Local Food Marketing Practices Survey). In 2010, the Traverse Bay Economic Development Corporation and Michigan Good Food Charter set a goal to source 20% of the food for the Traverse City area within a 100-mile radius by 2020. When Jason Rowntree read that the meat portion of the plan was to be pasture-based if possible, he was inspired. Rowntree, Associate Professor for Beef Cattle and Forage Utilization at Michigan State University (MSU), was optimistic that Michigan could meet the goal with more education and an improved value chain.

"A recent report from Stone Barns Center for Food and Agriculture, pointed to Nielsen data that indicated retail fresh, labeled grass-fed beef grew from \$17 million in 2012 to \$272 million in 2016," said Rowntree. "Michigan has the opportunity to meet this growing grass-fed beef demand."

In 2012, Rowntree applied for and received a \$181,342 NCR-SARE Research and Education grant to help connect area beef producers, local processors, distributors, and retailers in order to begin to meet Traverse City's 20% local food benchmark. Together with Jerry Lindquist, Dr. Matt Raven, Dr. Jeannine Schwehofer, and Kable Thurlow, Rowntree set off to develop a local, pasture-based beef production system for Northwest Michigan. Rowntree's plan included identifying producers to participate in a value chain project called the Grand Vision Grass-fed Certification Program (GVGC). They selected 17 producers to participate in the GVGC; the program included an on-farm assessment, pasture development, and a grazing and grass finishing school. The first year of grazing school involved practical soil and forage management, pasture allocation, and fence and water-point strategies. Year two moved on to advanced strategies on pasture allocation, specifically residual management along with forage chain

and synchrony development. They also included genetics and animal management components and educated producers on the differences between grass-fed and grass-finished beef. Participating producers were given pre-tests at the beginning of the project and post-tests at the end, and the results indicated that there was an increase in knowledge in those areas as measured in pre- and post- tests.

After three years of participating in the GVGC program, seven of the producers are now producing grass-fed beef at scale. Rowntree estimates that these producers will produce more than 300 head in 2017. Carcass quality and yield measurements were taken; the average carcass grade of the GVGC cattle was USDA High Select, and the average carcass yield at 19-21 months of age was 53-54%. They received price premiums of 25% above the general cattle market prices for the hanging carcasses. When asked how his operation had changed since the onset of this project, one producer said, "Sold the combine, sold the corn planter, sold the grain semi."

"By adding value to these cattle by producing grass fed beef, these producers have created an extra value of \$138,600 or an extra \$19,800 per farm over the three year period," reported Rowntree. "One example of the impact is our work with Bell's Brewery. Last year Bell's sold 8,000 pounds of our cooperators' grass-fed beef. The beef sold on average at \$14 per pound versus commodity prices of \$5. This alone would be an additional \$72,000 in added value with a small amount of product."

In tandem with the GVGC program, the team brought together 13 representatives of the distribution, culinary, and retail portions of the emerging grass-fed beef value-chain in order to discuss barriers to the market.



With SARE support, Jason Rowntree and Michigan State University are working to establish a system for pasture-based beef production. Photo courtesy of Jason Rowntree.

They met with meat distributors and chefs to devise strategies that utilize greater percentages of the beef chuck and round. The team also hosted the 2015 Grassfed Exchange, the national meeting of the grass-fed beef industry. Attendees included 230 people from 23 states, Canada, and Argentina. Building on the momentum of this project, the team at MSU is currently working on the development of a grazing app for use with smartphones in the field as well as a grass-finishing manual.

"We are seeing the producers trained through this SARE-sponsored research growing and thriving," said Rowntree. "They are also giving us input on new projects. I believe these advances generated by our producer-university relationships are important in forwarding long-term sustainability. We have been monitoring grazing impacts on land, including soil carbon sequestration. The data suggests we are growing an awesome beef product and concurrently are improving land—this equates to improvements in quality of life."

For more information on Rowntree's NCR-SARE Research and Education grant project, visit the SARE project reporting website at <https://projects.sare.org/search-projects/> and search for project number LNC12-345, or contact the NCR-SARE office.

NCR-SARE Awards \$3 Million in Grants

NCR-SARE is pleased to announce the projects that have been selected for funding for several grant programs. One hundred projects were awarded almost \$3.1 million through NCR-SARE grant programs this past year, which offer competitive grants for producers, researchers, students, educators, organizations, and others who are exploring sustainable agriculture in America's Midwest.

The Farmer Rancher Grant Program is a competitive grant program for farmers and ranchers who want to explore sustainable solutions to problems through on-farm research, demonstration, and education projects. In 2017, more than 40 grant projects were selected to receive a total of more than \$463,000 through this NCR-SARE grant program.

For the 2017 Youth Educator Grant Program, NCR-SARE awarded almost \$21,000 to 11 projects. The Youth Educator Grant Program supports educators who teach young people what sustainable agriculture is and help them explore related career options.

The Graduate Student Grant Program is a competitive grant program to fund graduate student projects that address sustainable agriculture issues. For the Graduate Student program, NCR-SARE awarded more than \$196,000 to 17 projects.

For the 2017 Partnership Grant Program, NCR-SARE awarded almost \$412,000 to 14 projects. The Partnership Grant Program is intended to foster cooperation between agriculture professionals and small groups of farmers and ranchers to catalyze on-farm research, demonstration, and education activities related to sustainable agriculture.

The Research and Education Grant Program is a competitive grant program for researchers and educators involved in projects that explore and promote environmentally sound, profitable, and socially responsible food and/or fiber systems. For the Research and Education program, NCR-SARE awarded more than \$2 million to 11 projects.

For the Professional Development Program, NCR-SARE awarded more than \$431,000 to six projects. NCR-SARE Professional Development Program grants emphasize training agricultural educators in extension, the Natural Resources Conservation Service, private, and not-for-profit sectors, using farmer and ranchers as educators and addressing emerging issues in the farm community.

To learn more, visit the NCR-SARE website for lists of funded projects and descriptions of the projects at www.northcentralsare.org/Grants/Recent-Grant-Projects.

To learn about the NCR-SARE grants funded in your state, visit the NCR-SARE website here: www.northcentralsare.org/grants/Funded-Grants-in-Your-State, where you can view a portfolio summary and funded grants list for every state and island protectorate.

The focus for each of the NCR-SARE grant programs is on research and education. Funding considerations are based on how well the applicant presents the problem being addressed, the project's relevance to sustainable agriculture in the 12-state North Central region, and how well it aligns with NCR-SARE's goals, among other factors specific to each grant program.

NCR-SARE's Administrative Council (AC) members decide which projects will receive SARE funds. The AC includes a diverse mix of agricultural stakeholders in the region. Council members hail from regional farms and ranches, the Cooperative Extension Service, universities, federal agencies, and nonprofits.

Since 1988, the SARE program has helped advance farming systems that are profitable, environmentally sound, and good for communities through a nationwide research and education grants program. The program, part of USDA's National Institute of Food and Agriculture, funds projects and conducts outreach designed to improve agricultural systems.

Grant-Writing Assistance

Are you interested in writing a proposal for an NCR-SARE grant? Did you know that NCR-SARE can provide grant applications, reports from other projects, lists of funded projects, or other sustainable agriculture information? To receive more information about the NCR-SARE grant program's preproposal/proposal processes and timelines, contact the NCR-SARE office, or visit www.northcentralsare.org/Grants/Write-a-Successful-Grant.

Assistance from SARE State Coordinators

SARE sustainable agriculture coordinators help train agriculture professionals in sustainable practices, share SARE project results, and work with SARE grant applicants. If you have questions about SARE in your state, or have a grant proposal idea your SARE state coordinator can help. Find your SARE State Coordinator and view documents about funded grants in your state by visiting NCR-SARE online at www.northcentralsare.org/State-Programs. You can also sign up to receive notifications when grant programs are accepting proposals; simply go to www.sare.org/About-SARE/Join-Our-Mailing-List, or contact the NCR-SARE office at ncrsare@umn.edu or 612-626-3113.

Michael Fields Grant-Writing Assistance

Did you know that the Michael Fields Agricultural Institute provides free grants advising services with priority to two target groups in the Midwest? While their services are open to all farmers and agricultural entrepreneurs, priority is given as follows:

- In Wisconsin: All new or existing producers and agriculture-related businesses, as well as those working with them. Agriculture includes forestry and fisheries.
- In the Midwest: Beginning farmers, limited-resource farmers, socially disadvantaged farmers and/or military veterans, as well as organizations working with these farmers.

For more information and to be on the e-list for program announcements, please contact MFAI and WFU's Grants Adviser, Kitt Healy, at (630) 346-4749 or gracekhealy@gmail.com. Also visit www.michaelfields.org/grant-advising-resources/.

Producer Raises Prawns for Ohio Locavores

Freshwater prawn producer, Don Maloney (center), sells locally-raised, freshwater prawns in Ohio. Close friends Dana Wilder (left) and Jay Picklesimer (right) help Maloney with the harvesting. Photo by Erica Brechtelsbauer.



Global demand for seafood is projected to increase by 70 percent in the next 30 years. Because harvests from capture fisheries are unlikely to meet that demand, some argue that a dramatic increase in aquaculture is needed to supply future aquatic food demands (USDA-NIFA). Although the Census of Aquaculture reported a \$3 million increase in domestic, farm-level sales between 2005 and 2013, the United States remains a major importer of farm-raised seafood products, and one of the largest categories of imported aquaculture products is shrimp (USDA-ERS).

Ohio freshwater prawn producer, Don Maloney, thinks producers in the Midwest can help meet this growing consumer demand by producing prawns locally. Back in 2010, Maloney had a rough day at his day job. He had some land in Lancaster, Ohio, and decided to talk with Stan Smith with Ohio State University (OSU) Extension in Fairfield County about income opportunities. Freshwater prawn production was having some success in Ohio, and Maloney's land fit the bill, so the two discussed the idea of an aquaculture business around prawns. Why prawns? According to Laura Tiu, an aquaculture specialist at OSU, freshwater prawn have great potential for diversification of Ohio farms due to their short growing season (June 1st-September 15th) that fits in well with other farm activities. They have lower labor requirements (20 minutes/day feeding and one long harvest day), and can use underutilized existing water resources (Tiu 2011). Additionally, giant freshwater prawns farmed in the U.S. in ponds receive a "Best Choice" recommendation from the Monterey Bay Aquarium's Seafood Watch program. Less than a year after his conversation with Smith, Maloney built his first pond with input from experts at OSU Piketon and the Ohio Aquaculture Association. Giving himself five years to see if he could make it work, he launched his new business, Don's Prawns. Today, he sells unprocessed prawns to the public with a pondside harvest event, has a wholesale distributor, and sells at the Ohio Fish and Shrimp Festival. **Maloney has four ponds, two of which are identical ponds that have served as a sort of laboratory for freshwater prawn research in Ohio; he has received three NCR-SARE Farmer Rancher grants since 2014 to conduct various experiments around making freshwater prawn production more sustainable.**

At one point, Maloney and his crew were carrying 40-pound sacks to hand broadcast feed into the ponds, and Maloney wanted to improve efficiency. With a 2014 SARE grant, he developed a device to feed his prawns called the "shrimp shooter" using a leaf blower and an adjustable hopper to evenly broadcast feed across the ponds. They stocked two ponds to test the theory; they fed one pond of prawns by hand and the other using the mechanical device, and found that the device reduced labor and increased yields.

"For less than \$300, this device increased yields by 17%, and based on this year stocking rates increased our gross dollars on one pond by \$951.60," said Maloney. "Based on our current stocking rates and our current operation (2 ponds) with an expected life cycle of seven years

for the shrimp shooter, this \$300 investment could increase gross dollars to a total of \$13,022.40 over the seven year life cycle."

Always striving for sustainability with his freshwater prawns, Maloney had read several studies documenting the benefits of adding artificial substrate to increase available surface areas (besides just the pond bottom) for prawns. He thought that if he added substrate to a pond, he could use the same amount of pond space and water, yet increase the size and yield of his prawns. With support from a 2015 SARE grant, Maloney staked plastic bird netting into one of his ponds (bird netting was used because it has a lower cost than orange construction fencing). Prawns are sold and categorized by size and weight; the pond with the substrate yielded 86% medium or large prawns, while the pond with no substrate yielded 79%. He said that adding substrate increased yields and profits. The substrate had a relatively low cost, yet increased yields and profits.

Maloney's ponds have to supply enough oxygen for the prawns to survive, and the larger the prawns grow, the more oxygen they use. To meet this need, Maloney uses aerators to increase oxygen levels. He wanted to know if a low-cost unit, which consumes considerably less electricity, could handle the oxygen needs of one of his 1-acre ponds throughout the entire season. A third SARE grant in 2016 allowed Maloney to ascertain the viability and cost savings of using a low-energy aeration device compared to a commercial duty device to aerate his ponds.

"Based on the research from this grant, the recommendations for larger ponds (¾ acres or more) would be not to deviate from the use of the commercial aerators," reported Maloney. "The output from the lower-energy-consumption-air pump could not produce enough oxygen for the prawns to survive. I believe smaller ponds half acre or less, and stocking rate of five to seven thousand prawns could be feasible for the low-energy-consumption pumps."

Because he values the quality of life in his community, Maloney offers field tours, has a public harvest event, and brings FFA students from Fairfield Union High School to the farm to help during prawn harvest. In 2015, he received the Conservation Partner Award from the Fairfield Soil and Water Conservation District for outstanding efforts in promoting conservation programs. Right now, raising prawns is not his full-time job, but he's optimistic about the growth of his business.

"We've got a niche market, and we sell out every year," said Maloney, "It's supplemental income for us for now, but every year we expand and get more efficient."

For more information, videos, and figures on Maloney's NCR-SARE Farmer Rancher grant projects, visit the SARE project reporting website at <https://projects.sare.org/search-projects/> and search for project numbers FNC14-962, FNC15-1003, and FNC16-1045, visit <http://donsprawns.com/>, or contact the NCR-SARE office.

Illinois Farmer Builds Precision Seeder to Maximize Cover Crop Advantage



Ralph “Junior” Upton is no novice when it comes to no-till and cover crops. His grain farm in the northeast corner of Hamilton county Illinois is 100% no-till with 1,800 acres of corn, beans, and wheat, and approximately 1,200 acres in cover crops. Upton has been farming more than 50 years, and the farm has been 100 percent no-till for more than 20 years. Since adding cover crops in the late 1980s, Upton has seen improvements to his once compacted soil, and has been able to reduce his use of chemicals and fertilizers.

Upton prefers to allow his cover crops to develop until planting time to get the fullest advantage from the cover crop biomass and root development, but waiting that long can pose problems when it comes to planting into heavy, green, cover crop residue. **In 2015, Upton applied for and received a \$7,289 NCR-SARE Farmer Rancher grant to experiment with building a precision, multi-cover crop species seeder.** He wanted to fabricate a precision seeder that would allow for a mix of different cover crop species to be planted both within the corn rows as well as between the corn rows. He hoped that by seeding cover crops species that are easier to plant into *within* the corn rows and different cover crops species that yield heavier residue in the *middle* of the corn rows, he could both maximize the advantages and minimize the challenge of planting into heavy residue. Upton believes this system of precision planting multiple cover crops species could

allow for a more flexible transition from a typically conventional tillage system into a no-till cover crop system.

Working with a project team that included John Pike of Pike Ag LLC, Mike Plumer of Conservation Agriculture, and Bronwyn Aly and Nathan Johanning with the University of Illinois Extension, Upton commenced building his precision seeder. He began by building a frame from scrap materials and a used planter that he had purchased specifically for the project. He also purchased crust buster seed meters for each of the nine planter units that are mounted to his frame. He set the planter units up in three rows on the frame and spaced them so that a row of seed could be planted every 7.5”. Units could adjust to match the seeding rate per acre, depending on the type of cover crop being planted.

Starting in Fall 2015, they placed the most challenging cover crop species to plant into in the row centers and placed those that would either winter kill (or result in a more fragile residue) closer to the corn row itself. Upton said that planting operations with his new seeder went well, generally, although there were some misalignment issues. He was hoping to have access to a real time kinematic (RTK) system for planting, and is confident that an auto steer or RTK system would allow the planting to be more efficient, due to improved placement of the rows. Despite the inefficiencies due to planter alignment, Upton said good results were

achieved and much was learned, confirming that the general idea of the project and precision-planted cover crops was valid and effective. His plot yields were comparable to corn yields in the surrounding area and throughout the southeastern Illinois region.

“While cover crop interest has increased in recent years, broadcast seeding and drilling methods do not allow for the examination of how individual cover crops contribute to the successes or challenges of achieving a suitable stand of corn,” said John Pike. “This precision planting demonstration has allowed us to identify some promising strategies for cover crop species placement that could reduce challenges and increase success to fine tune cover crop systems.”

Pike said Upton’s work has spurred interest among farmers and crop advisors from across the state looking for more novel applications of cover crops. He says the information and demonstrations coming from this project have reached hundreds of producers. Field days have attracted more than 120 attendees, and Pike and Plumer have both utilized information from the project in their presentations at workshops and conferences across the region.

For more information, figures, and plans about Upton’s precision, multi-cover crop species seeder, visit the SARE project reporting website at <https://projects.sare.org/search-projects/> and search for project number FNC15-1018, or contact the NCR-SARE office. Learn more about Upton’s extensive work with cover crops and no-till at www.sare.org/Learning-Center/Books/The-New-American-Farmer-2nd-Edition/Text-Version/North-Central-Region/Ralph-Junior-Upton-Springerton-IL



Ralph Upton received SARE support to build a precision, multi-cover crop species seeder on his farm in Illinois. The photo on the left shows Upton constructing the seeder, the photo in the center shows the completed seeder, and the photo on the right shows cover plots two months after planting. Lower photos courtesy of Ralph Upton. Upper portrait of Upton: NRCS photo by Ciji Taylor.

NCR-SARE Heroes: Deborah Cavanaugh-Grant, Ferd Hoefner, and Margaret Krome

In 2012, the NCR-SARE Administrative Council created the NCR-SARE Hero Recognition to highlight, recognize, and pay tribute to those who have made significant contributions to NCR-SARE and/or National SARE. NCR-SARE is pleased to announce that Deborah Cavanaugh-Grant of Greenview, Illinois, Ferd Hoefner of Takoma Park, Maryland, and Margaret Krome of Madison, Wisconsin are being honored as 2017 NCR-SARE Heroes.

Deborah Cavanaugh-Grant



Deborah Cavanaugh-Grant. Photo courtesy of University of Illinois Extension.

Deborah Cavanaugh-Grant has more than three decades of experience working in sustainable agriculture and local food systems. Holding a master's degree in environmental studies, as well as undergraduate degrees in

horticulture, crop

and soil science, and secondary education, Cavanaugh-Grant has served in a number of roles that have advanced sustainability. She served as the Resource Planner and Coordinator of the Sustainable Agriculture Grant Program for the Illinois Department of Energy and Natural Resources (1987-1992), the Executive Director for the Illinois Sustainable Agriculture Network (1992-1994), the Co-Coordinator of the University of Illinois Agroecology Sustainable Agriculture Program (1994-2006), and as the University of Illinois Extension Specialist for Small Farm and Sustainable Agriculture, providing statewide leadership for educational programming (2006-2011). From 2004-2011, she was the co-founder and co-facilitator for the Central Illinois Farm Beginnings Program, which continues to train new farmers and has educated 199 participants during the 12 years of operation, and from 2011-2015, she was a Local Food Systems and Small Farm Educator at the University of Illinois Extension. Her service to NCR-SARE includes her role as the Illinois SARE State Coordinator (1994-2010), as a member of the NCR-SARE's Technical Committee (1994-1997) and as a member of NCR-SARE's Administrative Council (1999-2002). After retiring from the University of Illinois Extension in 2015, Cavanaugh-

Grant started her own business, New Leaf Consulting, and currently serves on the board for a number of organizations including the Illinois Farmers Market Association, Grow Springfield, Slow Food Springfield, and Spence Farm Foundation.

Ferd Hoefner



Ferd Hoefner. Photo courtesy of NSAC.

Ferd Hoefner has worked since the late 1970s to advance sustainable agriculture's role in the U.S. food and farm system, and has been a leader in the sustainable agriculture community for more than 30 years, with a focus on

federal policy and advocacy. He holds an undergraduate degree in government from Oberlin College, where he began his path in sustainable farming as he helped build a greenhouse and learned about composting on the student farm. For nearly a decade after he left Oberlin, he represented Interfaith Action for Economic Justice and the Interreligious Taskforce on U.S. Food Policy, during which time he helped to pass the Agricultural Productivity Act which provided the initial, early authorization for the LISA program, SARE's forerunner. He was a policy consultant for Bread for the World, the Center for Rural Affairs, Conference on Alternative State and Local Public Policies, the Land Stewardship Project, the Lutheran Office for Governmental Affairs, the Presbyterian Church, and the U.S. Catholic Conference, among others. As a founding staff member of National Sustainable Agriculture Coalition (NSAC), Hoefner led NSAC's federal policy work from 1988-2016, which included promoting the development of the SARE program in the late 1980s. As an alliance of grassroots organizations that advocate for federal policies supporting the long-term economic and environmental sustainability of agriculture, natural resources, and rural communities, NSAC has been a leading voice for sustainable agriculture and the SARE program in the federal policy arena. Throughout his career, Hoefner has partnered with dozens of organizations in the North Central region, working closely with farmers, researchers, processors, and advocates to

ensure that federal policy benefits family farmers in the region. Hoefner currently serves in a mentoring and advisory role to NSAC as their Senior Strategic Advisor.

Margaret Krome



Margaret Krome. Photo courtesy of MFAI.

Margaret Krome has spent thirty years developing programs and policies supporting sustainable agriculture. Krome's interest in agriculture dates back to her childhood, as the grandchild of a Florida avocado and citrus grower.

She holds an English degree from University of Virginia, and a master's degree from the University of Wisconsin Nelson Institute, which she attended after serving as an agroforester in the Peace Corps, in Cameroon. Krome remained in Wisconsin where she worked for the Wisconsin Rural Development Center (1986-1995). She then joined the Michael Fields Agricultural Institute (MFAI) in 1995, where she continues to work today overseeing their policy program, including her work on the annual campaign to fund federal programs supported by the National Sustainable Agriculture Coalition. An asset to sustainable agriculture in Wisconsin, Krome helped develop the UW-Madison Center for Integrated Agricultural Systems, the UW-Madison's Pesticide Use and Risk Reduction program, the Buy Local, Buy Wisconsin program, and the state's farm-to-school program, among others. Krome's service to NCR-SARE includes her membership on the advisory committee for Wisconsin's State SARE Program, where she offers input to Wisconsin State SARE coordinator, Diane Mayerfeld. In addition to her work with MFAI, Krome currently serves on the board of the National Center for Appropriate Technology and writes a bi-weekly editorial column for The Capital Times in Madison.

Read tributes and learn more about the NCR-SARE Heroes online at www.northcentralsare.org/About-Us/Regional-Initiatives/NCR-SARE-Hero-Recognition-Program.

New Administrative Council Members for NCR-SARE

Marilyn Barber, Barry Fisher, Jamie Good, and Matthew Streeter were recently elected to the NCR-SARE Administrative Council. Representing various agricultural sectors, states, and organizations, the Administrative Council sets program priorities and makes granting decisions.

Marilyn Barber has been elected as an At-Large Farmer/Rancher Representative for the NCR-SARE Administrative Council. Barber is a master gardener and urban farmer in Detroit, Michigan. She attended the Michigan State University Organic Farming Program and went on to be the Farm Manager at “D-Town” Farm. She currently serves as the Coordinator for Earthworks Urban Farms’ agricultural training program.

Barry Fisher has been elected as a Natural Resources Conservation Service representative (NRCS) for NCR-SARE’s Administrative Council. Fisher is a Region Soil Health Team Leader for NRCS’s Soil Health Division, covering the central states, and located in Indiana. With a bachelor’s degree in agronomy, he provides Soil Health Management System training and assistance to NRCS field staff and partners. He represents NRCS on the technical team for the Conservation Cropping System

Initiative (CCSI) and the Midwest Cover Crop Council (MCCC). He and his wife Michael own and operate a small “never-till” grain and grazed livestock farm in West-Central Indiana.

Jamie Good has been elected as a Department of Agriculture representative for NCR-SARE’s Administrative Council. With a bachelor’s degree in Animal Science, a minor in Ag Business, and a separate degree in visual communications, Good works for the North Dakota Department of Agriculture’s Marketing Division where he serves as the Local Foods and Organics Marketing Specialist.

Matthew Streeter has been elected as a United States Geological Survey representative to NCR-SARE’s Administrative Council. With a bachelor’s degree in agronomy and a master’s degree in soil science, Streeter works as a soil scientist for the Iowa Geological Survey. His research interests include soil health and agricultural crop production, wetland soil restoration and hydrology, agronomic soil sustainability, soil and water interactions in terms of nutrient storage and transport, and soil erosion and deposition.

NCR-SARE would like to extend gratitude to **Teresa Engel, Rick Juchems, Mark Kuzila,** and **Carissa Spencer** whose terms on the Administrative Council have come to an end.

NCR-SARE Grants At-A-Glance

Learn more about exciting SARE-supported projects! Use the project number listed with these projects to find more information at <https://projects.sare.org/search-projects/>, or follow NCR-SARE on Facebook or Twitter to receive regular updates like these.

With SARE support, **Cammack Ranch** is working on a winter-patch grazing project with South Dakota State University West River Ag Center near Enning, South Dakota. This is SARE project LNC15-371.

SARE grantee, **Arion Thiboumery**, was able to leverage his initial \$9,000 SARE grant into \$500,000 worth of assistance to work with Lauren Gwin of Oregon State University to develop the Niche Meat Processors Assistance Network. Today, he’s co-owner of Vermont Packinghouse. This is SARE project GNC07-085.

With SARE support, **Butler University, Growing Places Indy, Fitness Farm,** and **Mother Love’s Garden** are working together to pursue urban outdoor mushroom production. This is SARE project ONC17-023.

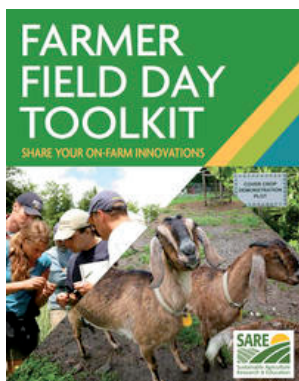
With shared-use kitchens steadily gaining popularity, the **Purdue Extension Local Food Program** designed tours with SARE support to give attendees an inside look at 12 successful kitchens throughout the Midwest. This is SARE project LNC15-374.

With SARE support, the **Savanna Institute** is establishing silvopasture in degraded oak savannas by selectively thinning trees and shrubs, and by adding native and agronomic forage plantings. This is SARE project ONC16-017.

Iowa State University Extension’s “Agronomy in the Field” SARE-supported workshops offered woman landowners, farmers, conservationists, retailers, and other women opportunities to learn more about agronomic and conservation practices. This is SARE project ONC17-031.

The **University of Wisconsin’s Center for Community and Economic Development** has a SARE project to scale up food waste composting to increase the supply of affordable and appropriate compost for food production in food insecure neighborhoods. This is SARE project LNC16-382.

New Resource: Farmer Field Day Toolkit



You’ve done some interesting work: You had a great idea, tried it on your farm, and got surprising results. Now, you want to

share those results with other farmers and ranchers. The only problem is, you’re busy and constantly pressed for time. Who has time to plan a field day? Thankfully, SARE’s new Farmer Field Day Toolkit is here to take off some of the pressure and get the right tools and tips into your hands.

This free, digital Farmer Field Day Toolkit is a comprehensive resource of step-by-step instructions, timelines, and downloadable tools and templates for planning and hosting a successful event. Plus, users will learn the ins and outs of working with the media, creating press releases and PSAs, generating public interest, capturing the event with video, and sharing it online.

This toolkit offers ideal support to farmers and ranchers who have received a SARE grant and are interested in holding a field day to fulfill their outreach requirement. But our toolkit can be used by anybody interested in hosting a field day, so download it now and start planning an event of your own. You can view the toolkit for free online at www.sare.org/Grants/Farmer-Field-Day-Toolkit



Wisconsin Non-profit Brings Beekeeping to Youth and Community

A Madison area middle school student shows off beekeeping knowledge to visiting teachers at Goodman Youth Farm. Photo by Jennica Skoug.

Nestled in a modest neighborhood on Madison's far east side, a small non-profit farm is helping young people connect with nature and food. The Goodman Youth Farm is a program of Community GroundWorks, and uses a half-acre urban vegetable farm as an outdoor classroom, engaging students in activities such as growing and harvesting produce, planning and preparing meals, and delivering produce to the local food pantry. The farm is also home to two active beehives.

In 2012, NCR-SARE funded a youth beekeeping pilot program at the Goodman Youth Farm, where students learned about keeping bees with help from a local bee expert. Two years later, in 2014, Goodman wanted to expand their youth beekeeping program, and received a \$2,000 NCR-SARE Youth Educator grant to formalize their lessons and develop a program that could be used as a model for other educators interested in youth beekeeping initiatives.

The beekeeping program was already underway at Goodman when Jennica Skoug began her job as farm manager in 2013. Their 2014 NCR-SARE grant allowed her to work with students with various levels of beekeeping experience, and supported hands-on activities, including crafting value-added products from honey and beeswax. Beginning youth beekeepers learned about the life cycle of honey bees through direct observation, sampled honey, and learned how to extract honey and wax while leaving enough honey as a resource for the bees. Intermediate and advanced youth beekeeping programs included lessons about honeybee anatomy, hive inspection, and pollinator threats, and also gave middle and high school students the chance to experience beekeeping in a hands-on way, including extracting honey from a beehive and making lip balm from bee's wax.

"Originally, our plan was to have the middle school students be designated as 'intermediate,' while high schoolers would be 'advanced' beekeepers learning more complicated techniques and topics," explained Skoug. "In reality, we found that students' abilities to take on more advanced tasks was not a function of age, but rather of a students' past experience and comfort level around the bees." Skoug reported that more than 50 students participated in their formal beekeeping programs in 2014-2015, and more than 2,200 students visited the hives at Goodman during that time. Tours for educators involved more than 70 adults in beekeeping activities at the farm.

"We learned that although youth (and adults) often have long-held fears about bees that these fears are often overcome with time spent near the hive, and a new appreciation for bees and their role in sustainable agriculture naturally develops," explained Skoug. "Participating in an activity that most adults are unfamiliar with, and being able to show off their skills, helped develop a sense of confidence and pride in middle and high school students. Younger students seemed to sense this enthusiasm, and show an interest as well."

Skoug is excited about the growing interest in and support for the beekeeping program at Goodman. In 2016, they started a workshop at the farm for families and educators called "Beekeeping with Youth," an introduction to working with kids at the hive, and they've created a new webpage that includes links to all of the beekeeping lessons they have developed. View these resources online at www.communitygroundworks.org/content/pollinators-school-garden.

"This grant really gave us the boost we needed to take the program to the next level, from funding to train a bee education intern to our first foray into the world of making beeswax lipbalm," said Skoug. "The increased activity around the hive inspired one dedicated volunteer to donate 12 professional beekeeping jackets so we could involve larger groups in the program."

Read more about Goodman Youth Farm's NCR-SARE Youth Educator grants on the SARE project reporting website. Simply search by the project numbers YENC12-052 or YENC14-079 at <https://projects.sare.org/search-projects/>, or contact the NCR-SARE office for more information.

Our Farms, Our Future Conference: The Next 30 Years of Sustainable Agriculture

Save the date for an important national sustainable agriculture event on April 3-5, 2018 at the Hyatt Regency at the Arch in downtown St. Louis, Missouri. The Our Farms, Our Future conference, hosted by SARE and NCAT/ATTRA, will bring together our diverse agricultural community: farmers and ranchers, agricultural professionals, agribusiness, students, researchers, scientists, agency representatives, and nonprofit leaders. Every decade, SARE hosts a conference to look at the progress of sustainability in agriculture, and to understand our trajectory for the future. Details will be shared online at <http://www.sare.org/Events/Our-Farms-Our-Future-Conference>.

You can look forward to:

- Dynamic keynote speakers

- Farm tours
- SARE grantee project posters
- Engaging panel sessions featuring new and established farmers and ranchers
- Breakout sessions on such topics as cover crops and soil health, grazing for beef and dairy, urban agriculture, success stories in farming and ranching, and water challenges
- A pre-conference session led by NCAT/ATTRA for military veterans featuring previous Armed to Farm program participants

Photo courtesy of CityArchRiver Foundation.



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Did you know NCR-SARE is on Facebook, YouTube, Instagram and Twitter? Keep track of our grant opportunities, projects, events, and more. Search for North Central Region SARE and follow us!



ABOUT NCR-SARE

NCR-SARE funds cutting-edge projects every year through competitive grant programs, and has awarded more than \$50 million worth of grants to farmers and ranchers, researchers, students, educators, public and private institutions, nonprofit groups, and others exploring sustainable agriculture in the 12 states of the North Central region.

Are you interested in submitting a proposal for an NCR-SARE grant? Before you write the grant proposal, determine a clear project goal, and look for sustainable agriculture research on your topic. Need help determining which program is best suited for your project? Go to www.northcentralsare.org/Grants for more information, or contact the NCR-SARE office.

For more information about any of the NCR-SARE grant programs, go to www.northcentralsare.org/Grants or contact the NCR-SARE office at 612-626-3113 or ncrsare@umn.edu.

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NCR-SARE GRANT TIMELINES*

Farmer Rancher*

Mid August - Call for Proposals Released
Early December - Proposals Due
February - Funding Decisions
Spring - Funds Available to Recipients

Graduate Student*

February - Call for Proposals Released
April - Proposals Due
Late July - Funding Decisions
September - Funds Available to Recipients

Research and Education*

August - Call for Preproposals Released
Late October - Preproposals Due
Late January - Full Proposals Invited
April - Full Proposals Due
Late July - Funding Decisions
Fall - Funds Available to Recipients

Professional Development Program*

February - Call for Proposals Released
Early April - Proposals Due
August - Funding Decisions
October - Funds Available to Recipients

Youth Educator*

Mid August: Call for Proposals Released
Early November: Proposals Due
February: Funding Decisions
Spring: Funds Available to Recipients

Partnership*

Early August: Call for Proposals Released
Late October: Proposals Due
February: Funding Decisions
March: Funds Available to Recipients

*Timelines are subject to change.

NORTH CENTRAL REGION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION PROGRAM CONTACT INFORMATION

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NCR-SARE is pleased to welcome our newest Administrative Council chair, Nancy Williams (left) and vice chair, Erin Schneider (right). Photo by Marie Flanagan.