

Growing Growers for Greater Kansas City: Establishing a Permanent Program to Train Farmers in Sustainable, Local Food Production and Marketing

The Newsletter
of the NCR-SARE
Program

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Report Highlights on Research Conducted by Edward Carey, Kansas State University

A group in Kansas City is training new, primarily organic growers, in the Kansas City food shed, and seeking to improve the skills of existing growers. The Growing Growers Training Program is a collaborative effort to train new sustainable and organic market farmers to serve the Kansas City food shed, and to develop the skills of current producers.

The Growing Growers Training Program was initially funded by a NCR-SARE Research and Education grant from July 2003 through June 2005, to organize apprenticeships on local organic/sustainable farms, and to develop activities to improve the skills of existing farmers. In 2005, they submitted another proposal to NCR-SARE to develop their project into an ongoing training program to support regional growers during all stages of their lives as farmers. New farmer training under the program is based on apprenticeships, complemented by reading and monthly workshops during the growing season. Workshops cover a range of core competency areas essential for market farming success and typically include farm tours and instruction by growers and extension or other specialists.

“Market farming is a profession that requires multiple skills related to production, marketing, and financial management,” explained Edward (Ted) Carey, coordinator of the 2003 and 2005 SARE projects. “Individuals without a background in agriculture may find information of these skill sets difficult to

access. Established growers constantly work to improve skills to respond to changing circumstances and new information about sustainable farming practices.”

Grower-directed learning and networking is a central part of the program, as is partnership/linkage with extension specialists and others with technical knowledge of core competencies for successful market farming. Workshops often include a presentation by an extension specialist and a grower and are followed by a farm tour. The apprenticeship program is a way for experienced growers to train prospective growers and provides apprentices with an access point to agricultural knowledge that is often difficult for individuals without an agricultural background to find.

During the grant period, from 2006 through 2008, Growing Growers hosted 27 workshops, a multi-session business planning class for new and current growers, and a conference, “Feeding Kansas City”, that brought together 224 growers, restaurateurs, extension professionals, and others. 34 Growing Growers apprentices completed the program during that time, apprenticing on 15 different host farms. As of early 2009, more than four hundred participants on a email listserv share information on all aspects of local food production and marketing.

Outcomes of the program include new market farmers contributing to sustainable food production in the Kansas City food shed and elsewhere, improved skills of existing growers, and a new farmer training effort that continues to respond to demand and opportunities for training new producers to serve the demand for sustainably and locally grown produce in Kansas City. Progress was also made toward making the program self-supporting.

Growing Growers continued on pg. 2



Growing Growers apprentices, host farmers and other participants following a workshop on the taste and nutrition of food held at the Kansas City Community Gardens, Kansas City, MO.

Photo by Edward Carey.

Developing an Effective Strategy for Management of Internal Discoloration of Horseradish Root:

REPORT HIGHLIGHTS ON RESEARCH CONDUCTED BY MOHAMMAD BABADOOST AND ANAS ERANTHODI, UNIVERSITY OF ILLINOIS

Summary

This study was conducted to develop an effective method for management of internal discoloration of horseradish roots. Internal discoloration of horseradish is a disease complex caused by at least three fungi, *Verticillium dahliae*, *V. longisporum*, and *Fusarium solani*. These fungi are carried in the propagating roots (set-borne inoculum) and also survive in the soil (soil-borne inoculum). The first step for management of the disease was to develop a reliable method to eradicate set-borne inoculum of the pathogen. This was achieved by treating the sets in hot water. The most effective treatment for eradication of set-borne inoculum, without adversely effecting set germination or plant vigor, was determined to be hot-water treatment of horseradish sets at 47°C for 20-30 min. The second step for management of the disease was protecting plants against soil-borne inoculum in the fields. This goal was fulfilled by set treatment with the fungicide fludioxonil (Maxim 4FS or Maxim Potato WP) or biocontrol agent *Trichoderma virens* (SoilGard 12G or G-41) prior to planting sets. By combining the hot-water treatment of the sets and application of the fungicide or biocontrol agent onto the sets the internal discoloration of horseradish roots was effectively managed.

Objectives/Performance Targets

This was a two-year project to develop an effective strategy for management of the internal discoloration of horseradish roots. The specific objectives of this research project were:

- to evaluate and demonstrate the effectiveness of thermo-therapy for control of set-borne inoculum of the internal root discoloration;
- to demonstrate the effectiveness of the biofungicides for control of the internal

root discoloration;

- to demonstrate effectiveness of an integrated pest management approach to solve the complex internal discoloration disease of horseradish root; and
- to establish a sustainable horseradish production system.

Impact of Results/Outcomes

The research is expected to help to have a sustainable horseradish production in Illinois, as well as other horseradish growing areas in the U.S., because:

- there is no effective method for control of internal discoloration of horseradish roots is available, the proposed strategy can easily be implemented by the growers;
- the method is very cost/effective (about 2% of farm-gate value of the crop);
- the management approach is environmentally safe and can be used in organic horseradish production too; and
- all materials used in implementing the strategy are commercially available.

Economic Analysis

Horseradish is a high-value crop. Farm-gate value of horseradish ranges from \$3,000 to more than \$6,000 per acre (~ \$7,400 - \$15,000 per ha). Gross value of horseradish products ranges from \$6,000 to more than \$10,000 (~ \$15,000 - \$25,000 per ha). Horseradish has nutritional and medical values. The findings of this study are expected to have a positive impact on grower's income, economy of the horseradish grower's communities, and agricultural economy of Illinois and other states where horseradish is grown.

Growing Growers continued from page 1

Many individuals who have completed the apprenticeship or business planning program have gone on to start their own farms or other businesses supporting local food production, and former apprentices often refer others to the program. Two apprentice farmers have transitioned into becoming host farmers.

Steady participation in both the workshop series and apprenticeship program and a willingness by participants to pay registration or tuition fees, indicate that the program is providing a useful service and is on its way to becoming partially self-sustaining. However, there is a continued need for creativity in funding the position of program coordinator while also keeping program costs affordable to trainees.

Growing Growers believes the best way to learn about farming is from farmers. For more information about their project and to view information about becoming an apprentice or a host farmer, visit Growing Growers online at <http://www.growinggrowers.org/>

Read more about the Growing Grower's SARE projects online on the SARE project reporting website. Simply search by the project numbers, LNC03-238 or LNC05-253, at <http://www.sare.org/projects> or contact the NCR-SARE office for more information at ncrsare@umn.edu.

Photo by Edward Carey.



Hilary Brown, owner of the Local Burger restaurant in Lawrence, KS, talks about tasting and communicating about vegetable taste during a Growing Growers workshop on taste and nutrition.

The costs of implementing this strategy is approximately \$50 per acre. (\$124 per ha).

Read more about this SARE project online on the SARE project reporting website. Simply search by the project number, GNC07-074, at <http://www.sare.org/projects> online or contact the NCR-SARE office for more information at ncrsare@umn.edu.

Production of Disease and Mite Resistant Queen Honey Bees

In Rochester, IL, Stu Jacobson is attempting to increase interest and understanding among beekeepers in Illinois, eastern Missouri, and southern Wisconsin.

Jacobson has been working with bees for decades. He kept bees in Cape Cod, Massachusetts where he lived from 1970 to 1991. He started beekeeping in central Illinois in 1993. He has a PhD in biology and he did his Post Doc work studying African bees when they first arrived in Venezuela in 1978.

In 2006, Jacobson submitted a proposal to increase understanding and adoption of disease and mite resistant lines among beekeepers in Illinois, eastern Missouri, and southern Wisconsin and was awarded \$4,409 from NCR-SARE's Farmer Rancher Grant Program.

“The project was designed to address the dual problems of a lack of adoption of disease and mite resistant or tolerant lines of bees and an over-reliance on queens from Sunbelt states,” explained Jacobson. “Use of these lines will lessen the industry’s dependence on harsh chemical and antibiotics, which can contaminate honey and cause reproductive problems for the bees, and should be at the core of strategies to address Colony Collapse Disorder.”

A major thrust of the project was comprised of educational presentations to beekeepers on disease and mite resistant lines of bees. During 2007-2008 nine presentations were made to 288 people. Venues included the Bluegrass Beekeeping School, which draws beekeepers from Indiana and Ohio; the Kankakee Valley, IL Beekeepers Association; an introductory class of the Lincoln Land Beekeepers’ Association; the summer meeting of the Illinois State Beekeepers’ Association (ISBA); a State Line Beekeepers Association meeting; and the Eastern Apicultural Society meeting, among others.

The 2008 ISBA and the fall Stateline Beekeepers Association (Illinois, Iowa, and Wisconsin) meetings served as catalysts for the formation of an Illinois Queen Project (IQP). This initiative’s purpose is to promote the Illinois production of disease and mite resistant queens as well as small colonies adapted to the state’s climate and conditions.

The second part of the project was to produce disease and mite resistant, Minnesota Hygienic queens and to sell them to local beekeepers.

Two operations were involved in this project, a mixed grain farm of 250 acres in Loami, IL, and a 2.6 acre homestead near Rochester, IL. The Loami site has 15 honey bee colonies and sells honey and honey soap; the Rochester site has 50 honey bee colonies in three bee yards and sells honey and since the SARE project began, some queens and small honey bee colonies.



Jacobson pouring liquid nitrogen which is used to test bees for hygienic/disease resistant behavior.

Sustainable beekeeping practices were carried out for the past 4-5 years at both sites; either no treatments or only “soft,” botanically-based ones were used for varroa mites in a given year. Antibiotics were not used for at least 7 years at either site.

For the project, Jacobson used standard “cell grafting” methods to raise queens. The cells were introduced individually into small colonies called mating nuclei, from which the virgin queens take mating flights and remain until they begin laying eggs, at which point they are sold or placed into larger colonies.

During 2007, marketing of the queens occurred first through the annual summer meeting of the local beekeeping association, with about 30 persons attending. Marketing also occurred via calls to beekeepers in the area. During 2008, marketing also occurred during an introductory beekeeping class.

Steven Staley assisted by producing queen bees at his farm for the project; Richard Ramsey, past president of the ISBA, provided ongoing advice on marketing and related matters. David Burns, a queen bee producer and beekeeping equipment supplier, and Phil Raines, a commercial beekeeper in Illinois and Wisconsin, made important contributions to the project.

Jacobson believes that bees play a vital role in the sustainability of agricultural systems. “About 1/3 of every bite of food we eat requires insect pollination,” said Jacobson. “Honey bees are the most important pollinators for virtually all fruits and many vegetable crops; these foods are high in antioxidants, fiber, etc. Native pollinators are unlikely to regain sufficient importance as long as agriculture relies on large monocultures, insecticides, herbicides, and clean cultivation.”

Since completion of this project, Jacobson has commenced a new SARE project focusing on the Illinois Queen Initiative (formerly Illinois Queen Project-IQP). Activities for the new project have included a session on state queen projects and formation of an informal association of queen producers at the Heartland Apicultural Society meeting held in Ohio in July.

Read more about Jacobson’s projects online on the SARE project reporting website. Simply search by the project number, FNC06-641 or FNC08-705, at <http://www.sare.org/projects/> or contact the NCR-SARE office for more information at ncrsare@umn.edu.



Award-Winning Farm Family Conducts Research and Outreach on Traditional Hmong Herbs

Mhonpaj Lee (right) and her mother, May Lee, (left) with some of their Hmong herbs.

In Minnesota, Mhonpaj Lee, NCR-SARE Farmer Rancher grant recipient, is researching and documenting information about traditional Hmong herbs. In addition to her job as a translator at Hennepin County Medical Center, Lee farms with her family. They are currently offering shares from the first certified organic Hmong owned and operated Community Supported Agriculture (CSA) operation.

Lee has been farming with her family throughout her whole life. Her parents became pickle farmers after arriving in the United States. Eventually, they started a small garden for growing the traditional Hmong foods and herbs. The Lees have farmed at the Minnesota Food Association (MFA) through the Big River Foods program since 2007, where they grow a variety of vegetables including tomatoes, bell peppers, cucumbers, peas, and onions. Big River Foods is a food distribution program of MFA. In addition to their land at the MFA, they also grow their traditional herbs at a greenhouse in Mahtomedi, MN. They sell their products at area farmers' markets, through the MFA and their CSA.

In 2007, Mhonpaj Lee submitted a proposal and was awarded \$6,000 from the NCR-SARE Farmer Rancher grant program to investigate and document the preparation and identification of traditional Hmong herbs.

Of particular interest to Lee are the herbs that comprise the Hmong Post Partum Chicken Herb Diet.

Lee explained that after the birth of a child, many Hmong women go on a month long chicken/herb post partum diet. The diet, which consists of 18-20 specific herbs, and lean pasture raised chicken, is thought to increase appetite and provide appropriate nutrition.

After consulting with Professor Craig Hassel with the University of Minnesota Extension services to learn a process for collection and documentation, Lee began to collect and document how some of the traditional Hmong herbs are prepared and grown. She also began collecting information about the traditional medicinal usage of the herbs.

Lee pressed over 18 herb varieties and planted over 30 varieties of herbs with cuttings received from her mother and grandmother, growing them from plant starts and transplanting them. She has begun to document herb usage and the botanical names and common names. As Lee continues to research the names for the Hmong herbs, she will make identification photo cards that will indicate how to preserve and prepare the herbs, and the traditional medicinal purpose these herbs serve.

The Lee's farm has been gaining attention regionally. Mhonpaj Lee has hosted three city-wide workshops, and was able to contact Twin Cities Public Television to create a short segment on incorporating greens and vegetables into the diet.

She hosted a workshop at Roseville Arboretum on growing herbs. At the Mill City Market, Lee conducted a workshop

on how to prepare different varieties of Hmong greens. Lee and her mother, May, have been featured on the Twin Cities Public television show, Almanac, demonstrating tips and recipes for grilling with authentic Hmong herbs and peppers: http://www.tpt.org/aac/videos/2008/05/23/almanac_may_23_2008/memorial_day_grilling_with_mhonpaj.

Lee has been featured on Minnesota Public Radio, sharing her vision for Hmong farming: <http://minnesota.publicradio.org/display/web/2007/07/18/hmongfarming/?rsssource=1>

“The SARE grant allowed us to interview, grow inside a greenhouse, and preserve the organic transplants that may carry on for the next generations,” said Lee. “In the future I would ask for other farmers to collaborate with other indigenous cultures and be open to researching these herbs together and compiling cultural ways of preparing herbals.”

This year, the family was selected as the University of Minnesota's 2009 Farm Family of the Year for Ramsey County. The Farm Family Recognition Program has existed for over two decades and honors farm families in Minnesota for their contributions to the agriculture industry and their local communities.

Read more about Lee's project online on the SARE project reporting website. Simply search by the project number, FNC07-694, at <http://www.sare.org/projects/> or contact the NCR-SARE office for more information at ncrsare@umn.edu.

“Youth Renewing the Countryside:” Sharing Stories of Young People Returning to the Roots of American Agriculture

Down a winding country road in Garnett, Kansas stands the Bauman farm, where agriculture is a family affair. Upon purchasing the farm in 2001, the family's first farm venture was to raise pastured chickens and livestock. Today, the Baumans sell about 7,000 broiler chickens each year and an average 350 dozen eggs a week.

With the help of a grant from the NCR-SARE Farmer Rancher grant program, the Baumans experimented with pasturing different species of animals in the same area. With the “pasture stacking” project, the family increased their broiler chickens' average weight by 50 percent.

Rosanna, the eldest of the Bauman girls, explains that the weight increase was due in part to the addition of a new water system. “The project had a positive social impact on us kids,” explains Rosanna. “It has led each of us to take steps towards farming sustainably.”

Rosanna is just one of dozens of young people returning to the roots of American agriculture who are featured in a new book—Youth Renewing the Countryside. Produced by Renewing the Countryside

in partnership with young writers and photographers across the country and with support from SARE and the Center for Rural Strategies, Youth Renewing the Countryside shares remarkable stories of young people in each state changing the world through rural renewal.

Download Youth Renewing the Countryside at <http://sare.org/publications/youth.htm> for free. To order print copies (\$24.95 plus \$5.95 s/h) visit www.sare.org/WebStore, call 301/374-9696 or send check or money order to SARE Outreach, PO Box 753, Waldorf, Maryland 20604-0753. (Please specify title requested when ordering by mail.) Discounts are available on orders of 10 or more. Allow 3-4 weeks for delivery. Call 301/374-9696 for more information on bulk, rush or international shipments.

Read more about the Bauman's project online on the SARE project reporting website. Simply search by the project number, FNC05-572, at <http://www.sare.org/projects/> or contact the NCR-SARE office for more information at ncrsare@umn.edu.



SARE Offers National Continuing Education Program

SARE is offering a continuing education program. This continuing education program is designed primarily for Cooperative Extension and Natural Resource Conservation Service personnel (particularly new staff members), and other agricultural, natural resource and community development professionals. It emphasizes core concepts and a basic understanding of sustainable agriculture, its goals and its relevance to every farming and ranching operation – large or small.

The program includes five courses, available free of charge. Courses 1 and 2 are currently being offered now through the eXtension online campus. The remaining courses are in development:

1. Sustainable Agriculture: Basic Principles and Concept Overview
2. Strategic Farm/Ranch Planning and Marketing

3. Agroecology (in development)
4. Participatory Research and Education Skills (in development)
5. Program Planning Skills and Professional Development (in development)

Courses are presented online in an interactive, Web-based format and include a variety of activities, real-life examples and links to other Web sites that offer information, resources, and assistance to help you in your work. Courses will be self-guided and self-paced so you can complete them on your own schedule. To participate, go to <http://www.sare.org/coreinfo/register.htm>.

For more information about sustainable agriculture courses and workshops in your area, contact the SARE sustainable agriculture coordinator in your state at <http://sare.org/ncrsare/PDP/pdpstco.htm>.



Learn More about Funded Grants in the NCR

NCR-SARE makes public the lists of projects most recently recommended for funding for each of its grant programs: Farmer Rancher, Research and Education, Professional Development, Graduate Student Grant, and the Farmer Rancher Grant Program's Youth and Youth Educator grants.

Go to <http://sare.org/ncrsare/> to find links to lists of the projects recently recommended for funding.

NCR-SARE administers these grant programs, each with specific priorities, audiences, and timelines. The focus for each of the NCR-SARE grant programs is on research and education.

Funding considerations are made based on how well the applicant articulates the nature of the research and/or education

components of their sustainable agriculture grant proposals.

NCR-SARE Administrative Council (AC) members decide which projects will receive NCR-SARE funds. A collection of farm and non-farm residents, the AC includes a diverse mix of agricultural stakeholders in our 12 states. Council members hail from regional farms and ranches, the Cooperative Extension Service, and universities.

In addition, regional representatives of the U.S. Department of Agriculture, nonprofits, the Environmental Protection Agency, the Natural Resources Conservation Service, and NCR agribusinesses, state agencies, and foundations sit at the table to distribute grant money and decide on NCR-SARE policy.

Since 1988, the USDA's NCR-SARE program has awarded more than \$40 million worth of competitive grants to farmers and ranchers, researchers, educators, public and private institutions, nonprofit groups, and others exploring sustainable agriculture.

SARE's New Home, the National Institute of Food and Agriculture

The SARE program has a new home at USDA, the recently launched National Institute of Food and Agriculture (NIFA). NIFA, created by the 2008 farm bill, replaces the Cooperative State Research, Education, and Extension Service (CSREES).

NIFA's goal is to elevate the status of science in agriculture with the mission of using sound research and education to address some of the world's toughest problems through agriculture: global food security and hunger; climate change; sustainable energy; childhood obesity; food safety.

"I want USDA science to focus most of its resources on accomplishing a few, bold outcomes with great power to improve human health and protect our environment," said USDA Secretary Tom Vilsack.

SARE is proud to be part of NIFA and will continue to support cutting edge research and education projects advancing sustainable innovations to the whole of American agriculture.

Do you know the SARE Sustainable Agriculture Coordinator in Your State?

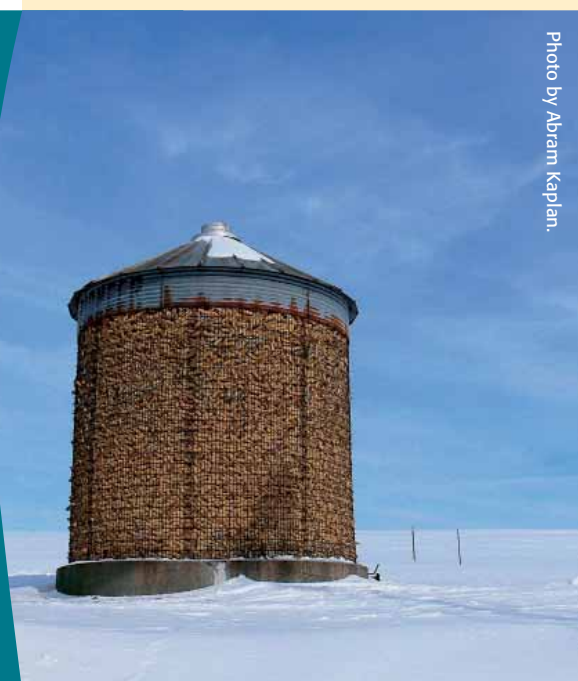
SARE provides funds to land grant universities to assist extension educators, farmers and other stakeholders in developing education activities in sustainable concepts and systems.

These state programs provide travel scholarships, mini-grants, and workshops to support professional development.

Each state in NCR-SARE has a sustainable agriculture coordinator who directs sustainable agriculture education activities and engaging agricultural stakeholders.

Because each state coordinator works to meet state-specific challenges, educational programs are designed to fit local needs of agricultural educators, farmers, agency personnel and others.

For more information on the NCR-SARE sustainable agriculture coordinator in your state, go to <http://sare.org/ncrsare/PDP/pdpstco.htm> or contact the NCR-SARE office at ncrsare@umn.edu.



Listening Sessions Reveal New Trends in Agriculture for NCR-SARE

by Christine Yaeger



“Farmers are not environmental activists, they are active environmentalists” said a farmer attendee at the recent listening sessions in southwest Minnesota.

This was among the many insights shared by farmers based in and around Bingham Lake and Clarkfield, MN during the sessions held July 28-30, 2009.

“The purpose for the listening sessions is for NCR-SARE to learn from residents of the region what is on peoples’ minds, what NCR-SARE is doing well, and what we might change to better meet the needs of people who live in the region,” said Bill Wilcke, Regional Coordinator of NCR-SARE.

Listening sessions were sponsored by the Circle of Sustainability (CoS), a committee of the North Central SARE’s Administrative Council (AC), which exists “to gain a different perspective about what sustainable agriculture means,” (Brad Brummond, former CoS Chair.)

Participants also included local bankers, crop consultants, Monsanto representatives, members and leaders of the Minnesota Soybean Growers Association and the Minnesota Corn Growers Association, Natural Resource Conservation Service representatives, Soil and Water Conservation District representatives, University of Minnesota Extension agents, as well as CoS members, AC members, AC alumni and NCR-SARE staff.

Listening sessions are not new to the NCR. In 2008, listening sessions were conducted on seven reservations in the Dakotas, with the goal of improving understanding and knowledge of sustainable agriculture from the perspective of tribal nations and to strengthen partnership with Native Nations within NCR (Listening Session Report, 2008).

In the 2009 listening sessions, participants discussed trends in agriculture, including movement toward consolidated land ownership, increased average acreage, higher land rental prices, fewer young farmers, off-farm jobs providing healthcare, higher equipment prices, higher input costs (e.g. seed, fertilizer), and an increase in specialization.

Issues that concerned the groups were the lack of the general public’s understanding of agriculture, tight margins of profit, the need for farmer education beyond field days and test plots, policies (like crop insurance) which encourage certain crops to be grown and management practices to be used, objective third party research and testing of new technology, youth outreach, rural revitalization, third-crop markets, advances in tillage systems, and risk management training for producers.

All of the attendees were deeply concerned about the essential components of sustainability: taking care of their land, their community, and maintaining profit. University of Minnesota Extension Educator Jodi DeJong-Hughes noted that many farmers “wanted to try new practices that were more environmentally friendly, more sustainable, but didn’t know how to without the risk of large losses. The environment and sustainability of their community was very important to them but they had to make sure they were profitable.”

This outlook offers SARE a valuable opportunity. Since 1992, NCR-SARE has funded more than 700 Farmer Rancher grants aimed at increasing the profitability of farmers, the health of the land, and the strength of communities. Grants are funded in vital, innovative areas that allow farmers to try something new while minimizing their financial losses.

The listening session attendees also identified current barriers to sustainable agriculture in their community, including the criteria of sustainable agriculture (e.g. non-GMO), the association of profit and risk management with scale-of-operation held by many institutions that service producers, and dependence or “tie into” large corporations.

“The listening sessions provided a healthy dose of end-user input,” commented Tom Coudron, AC member, “[which was] received while visiting the end-users homes and communities. The resulting perspective is immensely valuable when assessing the effectiveness of our competitive grant programs.”

In order to generate and disseminate sound and practical information and to increase the sustainability of agriculture, NCR-SARE will continue their commitment to listening to and responding to groups and communities of farmers, ranchers, researchers, and extension agents throughout the region. Suggestions of where listening sessions should take place are welcome and you can direct ideas to ncrsare@umn.edu.



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ABOUT NCR-SARE

NCR-SARE has awarded more than \$40 million worth of competitive grants to farmers and ranchers, researchers, educators, public and private institutions, nonprofit groups, and others exploring sustainable agriculture in 12 states.

NCR-SARE funds cutting-edge projects every year through grant programs.

Are you interested in becoming a project coordinator for a NCR-SARE grant? Before you write the grant proposal, determine a clear project goal and engage in sustainable agriculture research on your topic. Need help determining which program is best suited for your project? Go to <http://sare.org/ncrsare/apply.htm> for more information, or contact the NCR-SARE office.

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GRANT PROGRAM TIMELINES

Farmer Rancher Grant Timeline

August: Call for Proposals
December: Proposals Due
March: Proposal Status Notification
Spring: Funds Available to Recipients

Graduate Student Grant Timeline

Fall: Call for Proposals
January: Proposals Due
March: Funding Decisions
Spring: Proposal Status Notification
Fall: Funds Available to Recipients

Research and Education Grant Timeline

April: Call for Pre-Proposals
June: Pre-Proposals Due
Early Fall: Preproposal Status Notification
Late Fall: Full Proposals Due
March: Funding Decisions Made
Spring: Proposal Status Notification
Fall: Funds Available to Recipient

Professional Development Grant Timeline

March: Call for Pre-Proposals
Late May: Pre-Proposals Due
June: Preproposal Notification
Late August: Full Proposals Due
November: Funding Decisions Made

For more information about any of the NCR-SARE grant programs, go to <http://sare.org/ncrsare/cfp.htm> or contact the NCR-SARE office at 612-626-3113 or ncrsare@umn.edu.

NORTH CENTRAL REGION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION PROGRAM
CONTACT INFORMATION
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NE Office: 402-472-7081 or 800-529-1342
Email: ncrsare@umn.edu
<http://sare.org/ncrsare/>
National Office: <http://www.sare.org/>



Photo by Teresa Webb.



Sustainable farming or Sustainable agriculture helps the farmers innovate and employ recycling methods, this apart from the conventional perks of farming. A very good example of recycling in sustainable farming would be the crop waste or animal manure. The same can be transformed into fertilizers that can help enrich the soil. Another method that can be employed is crop rotation. This helps the soil maintain its nutrients and keeps the soil rich and potent. Sustainable agriculture. Supply chains that are transparent, verifiable and impactful. Content pages: Content: We continue our journey promoting sustainable agriculture. We believe that for the agricultural sector to grow the safe, quality food needed now and in the future, the natural environment on which its depends must be protected and improved, and the social and economic well-being of growers, their employees and local communities must be supported. The goal of sustainable agriculture is to meet society's food and textile needs in the present without compromising the ability of future generations to meet their own needs. Practitioners of sustainable agriculture seek to integrate three main objectives into their work: a healthy environment, economic profitability, and social and economic equity.