NCR-SARE Farmers Forum

HIGHLIGHT



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The North Central Region-Sustainable Agriculture Research and Education (NCR-SARE) Farmers Forum is an annual event that gives NCR-SARE grant recipients the chance to share information about sustainable agriculture practices with a regional audience. The talks focus on research, demonstration, and education projects that promote sustainable farming and ranching. The projects emphasize the three pillars of sustainable agriculture: environmental stewardship, profitability, and social responsibility.

This highlight is a summary of reports and presentations from NCR-SARE Farmers Forum held at the 2015 Northern Plains Sustainable Agriculture Society Winter Conference in Aberdeen, South Dakota. It features speakers who received awards from NCR-SARE's six grant programs: Farmer Rancher, Youth Educator, Graduate Student, Partnership, Professional Development, and Research and Education. The letters and numbers listed above the project titles are NCR-SARE project numbers (e.g., FNC10-809). To read the full reports, go to the national SARE website at www.sare.org and click on the "Project Reports" tab; then click on "Search the Database." Enter the project number or a topic you want to search for in the "Search String" box.

The next NCR-SARE Farmers Forum will be held at the 2016 Practical Farmers of Iowa Conference.

NCR-SARE is a United States Department of Agriculture-National Institute of Food and Agriculture (USDA-NIFA) program that supports and promotes sustainable farming and ranching by offering competitive grants and educational opportunities for farmers and ranchers, researchers, educators, students, institutions, organizations, and others exploring sustainable agriculture.

The Farmers Forum is one of many educational efforts NCR-SARE supports. Visit the NCR-SARE website to see a calendar of events, educational resources, grant opportunities, and more at www.northcentralsare.org.

FNC10-796 Washburn, ND - Jeremiah and Krista Reiser

Developing a Mob Grazing System to Improve the Sustainability and Profitability of a Cattle Operation in North Dakota

OBJECTIVE: to explore the possibility of using mob grazing to extend the grazing season and reduce dependence on hav.

RESULTS: Jeremiah and Krista Reiser run an all grass operation on 2,700 acres of native prairie in central North Dakota. They run a herd of leased and owned spring calving cows and also custom graze the excess grass that is not planned for their own herd.

In 2010, they received a \$5,991 NCR-SARE Farmer Rancher Grant to explore the possibility of using mob grazing to extend their grazing season and lower their dependence on hay. With their SARE grant, they mob grazed

cow-calf pairs and fall calving cows at various times of the year across 300+ acres for each year of the grant.

According to the Reisers, increased rest was the single greatest result that they saw with the use of mob grazing. The grazing time period was extended, so in turn the land in front of the cattle had an increased number of days of rest. Jeremiah Reiser says this allowed the plants that were there to harvest more sunlight and produce more biomass, which allows for an increase in cow days per acre (CDA).



Krista and Jeremiah Reiser present information during a field day as part of their SARE grant on mob grazing. Photo courtesy of the Reisers.

"We were very excited about these results as we were getting about twice the recommended amount of grazing due to the increased efficiencies of utilization that are connected with mob grazing," said Jeremiah Reiser.

"The increased above ground biomass leads us to believe that we also are increasing our root depth and plant vigor at the same time," added Reiser. "The increased rest and extending the grazing season allowed us to be able to graze long into the winter and dormant season. It also allowed more regrowth to be stockpiled on areas for the following year's graze."

Northern Plains Sustainable Agriculture Society's Farm Breeding Club, ND -Frank Kutka

Increasing Varietal Suitability and **Availability of Cowpea** and Forage Radish **Cover Crop Seed for Northern Climates**

OBJECTIVE: to add to the agronomic value of forage radish and cowpea cover crops, and to provide cultivars with documented performance and suitability to seed production in northern climates.

RESULTS: With support from a \$199,776 Research and Education grant, the Northern Plains Sustainable Ag Society Farm Breeding Club and university partners at North Dakota State University, South Dakota State University, University of Wisconsin-Madison, and the University of Puerto Rico have been evaluating cowpeas and daikon radish from around the world for seed production in the Dakotas. On-farm evaluation, selection, and evolutionary participatory breeding is being conducted on forage radish on certified organic and low-input farms in ND, SD, and WI. The team is evaluating multiple accessions of forage radish and cowpea for cover crop characteristics, grazing potential, and seed production. They are measuring cover crop seed yields and testing weights. In conjunction with the agronomic research, the team is working with seed industry partners to evaluate market potential and identify market channels for the seed they produce.

They hope that this project will increase production, seed supply, markets, and utilization. They hope to enhance crop diversity, resilience, profitability, and overall sustainability.

New Buckwheat Varieties for Greater Sustainability

OBJECTIVE: to find improved buckwheat for organic farmers.

RESULTS: Buckwheat is a speedy short-season cover crop. It establishes, blooms, and reaches maturity in just 70-90 days and its residue breaks down quickly. Buckwheat can suppress weeds and attract beneficial insects and pollinators with its abundant blossoms. It is easy to kill, and can extract phosphorus from soil.

Anne Ongstad is a managing partner at The Whitman Ranch, a 13,500 acre operation

in the rolling prairie of central North Dakota. Approximately 4,000 acres are in certified organic production of flax, wheat, buckwheat, millet, sunflower, alfalfa, and oat/ pea hay. The rest of the acres are in pasture and used for uncertified beef production.

Ongstad is a member of the Northern Plains

Sustainable Agriculture Society (NPSAS) Farm Breeding Club, a member of the North Dakota Department of Agriculture Organic Advisory Board, and a member of the Advisory Board for the North Dakota State University Central Grasslands Research Extension Center. For several years, she has been thinking about how to make improved buckwheat available for organic farmers.

"Markets for organic buckwheat are currently strong and the seed market has increased with its use in cover crop mixes," said Ongstad. "However, there have not been new varieties released to the public in thirty to forty years and these public varieties are 'running out.' There are a few new varieties that are closed to the public and can only be grown under contract for resale back to the seed company. We need better buckwheat varieties that are available for us to put to our own uses, including cover cropping."

In 2013, Ongstad, Rick Mittleider, and Wayne Mittleider received a \$18,881 group Farmer Rancher grant from NCR-SARE to plant and harvest new buckwheat varieties in isolation from other buckwheat varieties.

In addition to these three farmers, Carmen Fernholz at the University of Minnesota



Anne Ongstad shares information about Buckwheat with a tour group as part of her SARE grant project.

Southwest Research and Outreach Center in Lamberton, MN; Steve Zwinger at the NDSU Carrington Research Extension Center; Pat Carr at the NDSU Dickinson Research Extension Center; and Kevin Murphy, a breeder at the Department of Crop and Soil Sciences at Washington State University in Pullman, WA, are carrying out small plot evaluations in association with the project. They are taking photos of the plots and providing data from organic and conventionally managed plots. They are measuring yield, seed counts, lodging, days to flowering, and taking notes on maturity, weeds, and canopy cover.

The research is ongoing, but Ongstad says the team intends to work with fellow members of the NPSAS Farm Breeding Club to discuss the importance of their findings and consider making the seed of promising new varieties available to the public via Farm Breeding Club seed sales. They also intend to provide samples of each variety to the USDA National Plant Germplasm System for breeders and other growers to use.

Finishing Time and Weights of Grass-fed Beef **Animals**

OBJECTIVE: to move grazing system research and adoption forward by documenting productive forage-based beef operations.

RESULTS: For more than 20 years, Jane Jewett has owned WillowSedge Farm near Palisade, MN. An increasing interest in grass-fed beef operations led Jewett to make the transition to grass-fed beef in 2008, and today she raises grass-fed Angus and Angus-Hereford cross cattle along with hogs, broiler chickens, and laying hens.

Her interest in applying for an NCR-SARE grant sparked after reading the scientific journal article titled: "Comparative Life Cycle Environmental Impacts of Three Beef Production Strategies in the Upper Midwestern United States" (2010). Jewett was curious about a passage that assumed 1,100 lb. live weight and 22 months of age at slaughter for grass-fed beef; compared to 1,400 lb. and 17 months for feedlot beef. Jewett was somewhat surprised by these findings because she knew she could produce 1,100 lb. live weight in a lesser amount of time solely on forage. She hypothesized that the long finishing time of

grass-fed beef cattle in the study could be due to producers raising heritage breeds of cattle, which tend to grow more slowly and may be smaller-framed animals than modern breeds; or to using an inadequate quality of forage. Jewett felt that modern breeds raised on well-managed grass and forage were not properly represented in the study and wanted to compare the productivity of grass-finished systems with a feedlot beef system in a situation

where cattle breeds and level of management of the system were similar.

In 2012, Jewett applied for an NCR-SARE Farmer Rancher Grant and received \$19,829 to study the finishing time and weights of grassfed beef animals. The funds provided Jewett the opportunity to collaborate with other grassfed beef producers who were producing 1,100

lbs. or greater live weight in a 15-to-18 month time frame. Three grass-fed beef producers collaborated with Jewett in the project: Edgar Brown from Willow River, MN: Jake and Lindsay Grass, owners of Grass Meadows Farm from Pine City, MN; and Bill and Bonnie McMillin from Kellogg, MN.

Jewett found that it was possible to produce an 1,100 lb. live weight (600 lb. carcass weight) in a 15-to-18 month time frame, depending on genetics and feed. She noted that with quality forage and good genetics, grass-fed results can exceed feedlot results-Bill McMillin acheived 749 lb. carcass weight (1,387 lb. live weight) in

"If we can capture the environmental benefits of pushing more acres into perennial forage while sacrificing very little of the beef productivity potential of a feedlot, I think that would be ideal-and I also think that is achievable," said Jewett.



With SARE support, Jane Jewett demonstrated that grass-fed beef can approach feedlot beef in terms of efficiency of production.

For more information and figures on Jewett's NCR-SARE Farmer Rancher project, visit the SARE project reporting website at www.mysare.sare.org and search for project number FNC12-860, or contact the NCR-SARE office. To learn more about Jewett's WillowSedge Farm, visit the WillowSedge's website at www.janesfarm.com.

¹ Nathan Pelletier, Rich Pirog, and Rebecca Rasmussen. 2010. Comparative life cycle environmental impacts of three beef production strategies in the Upper Midwestern United States. Agricultural Systems. 103(6):380-389. http://www.sciencedirect.com/science/article/pii/S0308521X10000399

LNC11-338

South Dakota State University -**Alexander Smart**

Mob Grazing Increases Efficiency and **Profitability of Livestock Production**

OBJECTIVE: to develop scientific-based guidelines on the novel "mob grazing" management practice to producers located in three level III Northern Great Plains ecoregions (Northern Glaciated Plains, Northwestern Glaciated Plains, and Northwestern Great Plains).

RESULTS: Mob grazing is a development in grazing management that uses extremely high stocking densities for short periods of time to improve soil health, pasture productivity, and carrying capacity.

Alexander "Sandy" Smart is a professor of Natural Resource Management in Range Science at South Dakota State University. He has a passion for the preservation of natural grasslands and the people who make their living from it.

He received a \$199,998 Research and Education grant from NCR-SARE to investigate the impacts of mob grazing in tall, mixed and short grass prairie land ecoregions on soil quality, carbon and nitrogen cycling, changes in plant species composition, and producer profitability.

Although the project is still in progress, the team has gained some insight into the mechanisms governing the trampling effect and adding litter to cover bare ground in relation to stocking density, plant height, and location.

So far, Smart has reported that mob grazing did increase the distribution of cattle manure. He also said producers are getting an increase in harvest efficiency, probably 40-50%, which is almost twice that over season-long continuous grazing at a moderate stocking rate. He says it remains to be seen how the soil health will change, ultimately affecting plant productivity.

Sioux County Extension, Fort Yates, ND - Sue Isbell

Squash in Sustainable Food **Production**

OBJECTIVE: to grow squash, and to bring new knowledge, tools, and experiences to Tribal youth.

RESULTS: Sue Isbell is a 4-H Youth Development Agent with North Dakota State University Extension Service in Sioux County, ND. In 2013, she received an NCR-SARE Youth Educator grant to work with youth from three Tribal communities across North Dakota on activities about sustainable agriculture, foods, gardening methods, marketing, and concepts and practices of breeding and seed saving.

Across two summers, youth learned the specifics of growing, marketing, eating, and breeding squash. They sold produce at their local farmers market, met with other growers and food marketers, presented extra produce to local elders, and cooked and ate squash at home to learn about various facets of a sustainable food system.

"Good nutrition and incomes are concerns across North Dakota and among the Tribal communities which often lack fresh produce and job opportunities," explained Isbell. "This project addressed these concerns by bringing new knowledge, tools, and experiences to tribal youth. The idea they could 'design' their own variety of squash was very empowering to the 'kids.' They took real ownership of the project and were very intent on learning the skills required to reach their goals."

Integrating Host Plant Resistance and Insecticides for Soybean Aphid Management

OBJECTIVE: to change awareness of more sustainable pest management tactics for the soybean aphid and the integration of host plant resistance and chemical and biological controls.

RESULTS: Soybean aphids (Aphis glycines Matsumura), are a major pest of soybean in the Midwest. Insecticides, such as pyrethroids and organophosphates, are used to suppress soybean aphid outbreaks to prevent yield loss. Another management tactic is host-plant resistance.

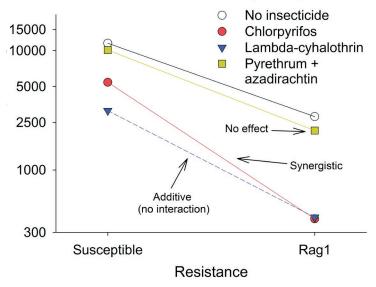
In 2013, University of Minnesota graduate student Anthony Hanson, received a \$9,938 Graduate Student grant to determine if there are combined effects of insecticide application and using resistant plants for soybean aphid control, with the hope that the efficacy of insecticides would be improved on resistant plants.

Hanson's team tested three different insecticides. Two were conventional insecticides with

active ingredients lambda-cyhalothrin and chlorpyrifos, which are a pyrethroid and an organophosphate, respectively. They also tested an insecticide available for organic growers containing pyrethrum and azadirachtin.

This research in ongoing, but so far Hanson has learned that the combined use of resistant plants (containing the Rag1 gene) and chlorpyrifos produced a synergistic effect. In those plots, the decrease in aphids compared to susceptible untreated plants was lower than combined effects of plots with resistant untreated plants or susceptible treated plants alone. Lab assays are ongoing, but are expected to conclude in spring

Effects of resistant plants and insecticide treatments alone and combined on soybean aphid



With support from a SARE grant, University of Minnesota graduate student, Anthony Hanson learned that the combined use of resistant plants and chlorpyrifos produced a synergistic effect in the battle against soybean aphids. In those plots, the decrease in aphids compared to susceptible untreated plants was lower than expected combined effects of plots with resistant untreated plants or susceptible treated plants alone.

Promoting Sustainable Biological Control of Soybean Aphid by Examining the Effect of Biodiversity and Releases of Parasitoid Wasps

OBJECTIVE: to establish and make available a sustainable soybean aphid control option for soybean growers.



George Heimpel's SARE grant helped support his work on sustainable soybean aphid solutions.

RESULTS: George Heimpel and his research group at the University of Minnesota have been working on biological control of the soybean aphid since 2001. They have used a number of methods, including releases of specialized aphid parasitoids from Asia, and promoting native biological control through plant diversification strategies.

Heimpel applied for an NCR-SARE Research and Education grant in 2013, and was awarded \$178,558 to identify favorable conditions for release and establishment of the Asian parasitoid wasp Aphelinus glycinis, a biological control agent approved for release by the USDA.

Heimpel released A. glycinis at two sites of the U of MN Agricultural Experiment Station in the summer of 2013, at two organic soybean farms during the summer of 2014, and into a buckthorn stand at the U of MN Agricultural Station in St. Paul in the Fall of 2014 (buckthorn is the overwintering host of soybean aphid).

The research is ongoing, but Heimpel has learned that A. glycinis can be released into soybean fields successfully using the methods his team developed during 2013. They have also developed a sleeve cage method for assessing overwintering success and implemented it for the first time over the 2014-2015 winter.

"We have shown that A. glycinis can cause significant mortality of soybean aphids in the months post-release," said Heimpel. "However, this parasitoid will need to be able to overwinter to become established in Minnesota."

Heimpel hopes this project will lead to improved protocols for establishment of A. glycinis, as well as parasitoids released in other cropping systems. He says sustainable biological control of soybean aphid would lead to increased profitability, decreased exposure to insecticides, and therefore increased quality of life for growers.

"This research would also be some of the very first field-based work with Aphelinus glycinis in North America, representing a novel and timely contribution to efforts to control soybean aphid, a damaging pest found in all 12 states in SARE's North Central region," said Heimpel.



The soybean aphid is an exotic pest of soybean with a very high reproductive potential.

Beach, ND - Donnie Feiring

Utilizing Cover Crops to Increase Productivity, Health and Vigor on Tame **Grass Pasture**

OBJECTIVE: to improve the health, vigor, and productivity of 50 acres of tame grass pasture.

RESULTS:

Donnie Feiring owns and operates Feiring's Cattle Co. in Beach, ND, a 120-head registered Black Angus cow calf operation. They also run 35 head of commercial yearling heifers.

Feiring wanted to improve the health, vigor and productivity of 50 acres of tame grass pasture - tame pastures are cultivated fields planted with introduced (non-native) grass and legume species or cultivars. Feiring's acres were cropped at one point in time and then seeded back to smooth brome grass about 30 years ago. The productivity, health, and vigor of the plants was declining.

Feiring applied for an NCR-SARE Farmer Rancher grant and received \$6,905 to seed 40 acres of a multi species cover crop into the declining brome grass stand. During the winter of 2012 he grazed the area. Soil biology and infiltration tests were taken.

Feiring reported that he increased organic matter, improved soil health, and increased production on the 40 acres under the SARE project. He reported a "tremendous difference" between the growth of the cover crops on bale grazed areas versus the growth of the cover crops on non-bale grazed areas. He says the bale grazed rings stayed cooler, held more moisture, and had more organic matter — they had quadruple the production as the rest of acres planted. They were also the first areas that the cattle grazed when they were turned in.

He says he plans to continue using cover crops on these 40 acres and possibly more acres in the future.

"By utilizing techniques such as cover crops, bale grazing, and high stock density grazing, we believe that the land can be improved without tilling it and replanting it," said Feiring.

Fountain, MN - Leslea and Brad Hodgson

Big Bluestem Management Using High Density/Short **Duration Grazing**

OBJECTIVE: to reduce the quantity of unwanted cool season grasses and various forbs in a big bluestem pasture using cattle instead of herbicides.

RESULTS: Big Bluestem is a warm season, perennial bunchgrass with blue-green stems 4-8 ft. tall. It has been referred to as "ice cream for cows."

Leslea and Brad Hodgson own and operate Root Prairie Galloways, where they raise Galloway beef cows and have big bluestem pastures that they want to protect from the encroachment of weeds into the bare areas between the grass clumps. In 2010, they received an NCR-SARE Farmer Rancher grant for \$5,907 to experiment with techniques to control the gradual invasion of unwanted cool season grasses and to establish two prairie legumes native to the pasture for added nitrogen in the soil.

They set up a study to learn what effect a hard early spring graze on the dormant bluestem pasture would have on the existing and invading cool season grasses and forbs. Fencing and waterlines were installed to facilitate rotational grazing. Seeds of Illinois bundle flower and Purple prairie clover were broadcast onto the pasture to increase nitrogen levels.

The cattle were moved onto the bluestem pasture and through paddocks that measured from approximately 50'x 100 to 60' x 100'. They adjusted the time the cattle spent in a paddock based on the amount of forage available for the cows. They varied their grazing pressure from 50,000 lbs./ac. the first year, to 181,000 lbs./ ac. in year two.

As their project wrapped up, the Hodgsons reported that the grazing techniques and management that they used led to improved yields of the warm season grasses, in particular big bluestem. They also noted that the amount of duff and litter decreased significantly through the period of the study, as did the bare soil areas, which signaled to them that the plant community became more vigorous and the plant stand thicker.

Making Goats Milk Soap Business Sustainable by Implementing Standard Manufacturing and Testing **Protocols**

OBJECTIVE: to create a prototype of safe manufacturing and testing practices for goat's milk cream soaps that can be shared with other farmers.



Penny Adler works on a batch of goat's milk soap. With support from a SARE grant, she hopes to establish good manufacturing practices.

RESULTS: Penny and Jay Adler own and operate the 444Farm in Hazel, SD. They have 40 acres (half in wetlands) where they have implemented sustainable grazing practices by replacing water systems, re-sowing pastures, installing high tensile fences, and creating paddocks for rotational grazing. They raise dairy goats and make goat's milk soap and lotion.

They sell their products at festivals, craft shows, farmer's markets, and on the internet. Penny Adler says the one product that sets them apart from other soap makers are their goat's milk cream soaps. Their cream soap cures for four months and has a lather like whipped cream, with "a velvet-like feel." They have three different cream soap products made

with goat's milk - Purifying Facial Soap with pink kaolin clay, Oats n Honey Facial Cleanser made with ground oats and local honey, and an exfoliating Creamy Sugar Scrub.

"Goat's milk soap products and the bath and beauty markets are growing," said Adler. "This creates opportunities for other farm families to create additional farm revenue with a value-added product such as soaps, lotions, lip balms, or hydrosols. Many of these ventures start in the kitchen, but as we scale

[up] to include liquid-based products (such as lotions or liquid soaps), we have to be aware of the impact that our processes and environment have on our final products."

In 2014, Adler received an NCR-SARE Farmer Rancher grant to implement safe manufacturing practices, complete product challenge testing, and to market their product safety and practices for their goat's milk cream soap.

The first year of the grant project was devoted to education and establishment

of Good Manufacturing Practices (GMP) and shelf-life/stability testing. Adler says the testing has slowed down the product release, but will increase the overall quality and marketability of their product.

"The establishment of GMP practices around inventory, processes and logging has been very beneficial," reported Adler. "I was expecting to spend more time on the preservative challenge testing, but initially it was spent on stability and shelf-life testing. It was important to do shelflife testing to make sure formulations are rock solid."



LNC12-342

Confinement Building Redesign Sheds 'Sunlight' on **Animal Welfare**

OBJECTIVE: to demonstrate that a confinement building can be converted to an animal welfare-friendly straw system to house pigs.

RESULTS: Paul Sobocinski has a 240 acre crop and livestock farm that includes hogs and cattle.



With support from a SARE grant, Paul Sobocinski converted a confinement building to a straw-based growing unit.

In 2001, he received a SARE Grant for the conversion of an existing pole barn to a deep bedded sow and piglet nursery. In 2012 he received a second NCR-SARE Farmer Rancher grant for \$7,450 to renovate an existing 24 by 64 foot confinement building with a partial pit to make the building suitable as a straw-based, animal-welfare-friendly growing unit.

Sobocinski added a new door and new windows. He built a pad for two feed bulk tanks and capped a major portion of the existing slats over their respective pits. He reinsulated the entire building and built ventilating chutes. He also installed new variable speed pit fans and installed new motors as needed in wall fans.

Sobocinski reported that pig performance in the building has been positive in terms of pig comfort and in terms of the rate of gain per pound of feed fed, resulting in 40% less feed per pound of gain compared to pigs in this weight category fed outside. He said that with the converted building, pigs can be gated into the feeding area which makes clean out easier. Capping 2/3rd of the pit was a main factor in improving air quality. The atmosphere has improved, and the air quality in the building is superior to when it was previously used as a pig confinement unit. He reported that the audit team for both Niman Ranch and Chipotle thought it was exceptional.

FNC14-977 Twin Brooks, SD – Linda Simmons

Reduced Pesticide Fly Control in Feedlots and Native Rangeland to Conserve Dung Beetles and Benefit Beef and Sheep Production

OBJECTIVE: to establish a diverse and functional population of beneficial insects that provide a sustainable and sufficient level of fly control at pastures that is extremely cost effective.

RESULTS: Linda Simmons is a beef and sheep producer in Twin Brooks, SD. Beef and sheep producers in northeastern SD depend largely on native rangeland, and there are several species of flies that can cause serious economic losses, including the horn fly. Simmons is concerned that dependence on pesticide use has resulted in pesticide resistance and a reduction in the populations of beneficial insects.

Together with the producers who are adjacent to her land, Simmons received a \$21,287 NCR-SARE Farmer Rancher grant to experiment with various reduced-pesticide fly control systems that help to conserve beneficial insects, especially the dung beetle.

The project is underway, and Simmons has begun experimenting with fly traps, walkthrough chutes that mechanically remove horn flies from cattle, and fly predator releases to reduce pest flies. If animal welfare or

performance requires a rescue pesticide treatment. she will use the



Linda Simmons at her North Dakota ranch, where she is working to suppress fly levels.

most low impact chemical product and method that is practical. Simmons is looking forward to testing her sustainable and low impact practices that suppress fly levels in 2015.

"Adding additional ecosystem-friendly fly control practices instead of chemical controls could create a sustainable and economically effective package of practices that control pest flies without harmful levels of pesticides/ vermicides and without economic losses to the producers," said Simmons.

Princeton, MN - John Mesko

Adjusting Your Farm Plan to Avoid the Bumps in the Road

OBJECTIVE: to increase the knowledge and awareness beginning farmers have of potential difficulties they may face; to create realistic, nimble, and flexible business plans for new and beginning farmers: to increase skills of new and beginning farmers to recognize dangers on the farming horizon in time to make adjustments; and to prepare a proper exit strategy for new and beginning farmers.



RESULTS: The Sustainable Farming Association of Minnesota (SFA) supports the development and enhancement of sustainable farming systems through farmer-to-farmer networking, innovation, demonstration, and education.

In 2012, SFA received a \$165,294 NCR-SARE Research and Education grant to work on two programs, Adjust 2015 and the New Farm Reality Check™.

Through paid surveys and interviews with beginning farmers, Adjust 2015 will summarize the stories of farmers who have had less than desired success, or have had to make changes to their operations and plans in order to survive. Adjust 2015 will be the basis for SFA's New Farm Reality Check™ educational materials, which will be available for beginning farmer-training courses throughout the North Central region.

"SFA's New Farm Reality Check™ is not a new beginning farmer education program. It is a curriculum to be used by current or future beginning farmer educational programs, and it is also a stand-alone half-day workshop that will present findings and suggest ways to avoid pitfalls/plan for success," said John Mesko, Executive Director of SFA.

The work is still underway, but so far SFA has conducted 232 surveys of farmers who struggled in the beginning of their farming careers or had exited. These surveys and interviews have been the basis for the educational modules they are developing. Evaluations from conference presentations have informed another round of revisions to the educational modules, which will be available later in 2015.

Mobile Farmers Market

OBJECTIVE: to improve access to healthy foods for the American Indian community in St. Paul, MN through the use of a mobile farmers market.

RESULTS: Dream of Wild Health — a program of Peta Wakan Tipi — was established in 1998 as a way to "promote health in the Native community by expanding knowledge of and access to healthy indigenous foods and medicines." At the Dream of Wild Health Farm they grow rare, indigenous seeds that have been gifted to the farm, thereby increasing the seed stock for future generations. They also offer age-appropriate and culturally focused summer garden programs to Native youth, ages 8-18, who learn about healthy lifestyles and sustainable farming.

In 2010, they began to envision a Mobile Farmers Market that would deliver fresh produce directly to four organizations serving American Native adults to work at the farm. With a small award from the Wallace

Interns at Dream of Wild Health's mobile farmers market package fresh produce for American Indian families around St. Paul. MN.

Center (HUFED), they were able to purchase a truck and complete a Food Needs Assessment in the St. Paul American Indian community.

Dream of Wild Health Executive Director, Diane Wilson, then applied for an NCR-SARE Farmer Rancher grant and received \$6,000 to expand their program by starting an internship program and increasing their marketing and outreach.

They hired a recent college graduate who had been an intern at the farm the previous year, as well as two Native teens to help staff each market. The teens gained job experience and earned a salary. They launched the first market with a press release, followed by weekly updates on their website that were also sent by e-mail, tweet, and fax to individuals and organizations. They created a weekly flyer with a current list of vegetables available at each market. They also obtained the equipment and training needed to provide EBT/Food stamp access.

"Native people experience disproportionately high levels of poverty and disease, especially diabetes. This project helped us launch an innovative market solution that focused on providing access to healthy, affordable food for people challenged by a lack of transportation, income, and food knowledge," said project coordinator, Diane Wilson.

Wilson says they hosted 10 markets over the course of 10 weeks, providing fresh vegetables to more than 200 Native individuals.

"The mobile market fits within our holistic approach to improving health by addressing issues with a variety of approaches, from providing education to hiring," said Wilson. "Our experience has taught us that changing diets and improving health is a complex, multi-faceted challenge. The Mobile Market was an integral piece of our programs by literally delivering food directly to families in need."

To find out more about NCR-SARE's educational programs and grants, please contact:



NCR-SARE

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