

**North Central Region SARE Professional Development Program
Michigan Sustainable Agriculture Plan of Work
Calendar Year 2009
by Dale R. Mutch**

Section 1: Background

Coordination of the Michigan SARE State Sustainable Agriculture PDP program through the Michigan State University (MSU) Extension KBS Land and Water Unit was transferred on August 1, 2007. Program efforts in late 2007 and 2008 have been concentrated on transitioning from Dr. Susan Smalley's program and establishing an active organization and programs to promote and foster professional development for Michigan agricultural educators in sustainable agriculture. Our approach has focused on creating a knowledgeable and proactive advisory council, formal mini-grant and travel scholarship programs and getting the word out to Michigan agricultural educators about the professional development opportunities the NCR-SARE program offers. Our program has intentionally supported a broad range of sustainable agricultural areas to attract a wide audience of agricultural professionals. Six mini-grants reached 70 educators including extension, university, state/federal/tribal and NGO educators. Fourteen educators received travel scholarships to increase their knowledge of sustainable agriculture. Michigan PDP and NCR-SARE information was shared with more than 325 individuals at conferences, field days and meetings throughout Michigan. Seventeen farmer/rancher grant proposals were submitted from Michigan in 2008. The sustainable energy in food systems initiative provided a 3-day tour of bioenergy projects in Indiana and Iowa that was attended by 25 agricultural educators. These efforts have produced a viable network of agricultural professionals knowledgeable in sustainable agriculture and are poised to make Michigan even more successful in adopting sustainable agriculture's practices and principles for the future.

Approach for 2009: With the input of the advisory council, we are redirecting our PDP program to focus on four new initiatives relevant to the current sustainable agricultural needs in Michigan. These are: 1) Local food supply chain, 2) Sustainable animal production, 3) Transition of farms to organic and sustainable production, and 4) Cover crops. Subcommittees within the advisory council have completed position papers on each initiative. We are actively seeking funding partners from industry, government, commodity, academia and non-profit groups to leverage NCR-SARE PDP funds. The advisory group has recommended \$5,000 in NCR-SARE PDP funds for each initiative and has set a goal of an additional \$5,000 in partner matching funds. The majority of mini-grant and travel scholarship funding will be imbedded in these initiatives. Some funding will be retained for other sustainable agriculture programs.

Section 2: Stakeholder Involvement

An advisory group has been established since 2007 and the members are listed in Attachment 1. The purpose of this advisory group is to advise the coordinator, participate in identifying educational program and research needs, and assist in the selection of recipients for SARE mini-grants and travel scholarships. The advisory group meets twice a year and participates in bimonthly teleconferences. The advisory group has become the voice for SARE in Michigan, informing educators, etc. about SARE PDP.

Section 3: Face of SARE

We have developed a web page (www.misare.msu.edu) for Michigan NCR-SARE including forms for mini-grants and travel scholarships. We have linked the Michigan SARE web page with the MSU cover crops web page (www.covercrops.msu.edu) and the New Agriculture Network web page (www.new-ag.msu.edu). For 2009 we will make information available on our website for all of the previously funded R & E, Professional Development, Farmer/Rancher, Graduate Student Grants, PDP mini-grants and PDP travel scholarships in Michigan. We are in the process of producing videos of selected grant recipients describing their projects, results and SARE's role in their development of sustainable practices. These videos will be published on the Michigan SARE website.

We have updated our poster display and PowerPoint presentations and created a brochure handout to promote Michigan NCR-SARE PDP and NCR-SARE grant programs. These materials were used to promote SARE at 19 events, field days and meetings in 2008. We anticipate continuing our promotion of SARE at similar venues in 2009. In 2009 we are expanding our promotion to include numerous small farm conferences around the state.

Section 4: Professional Development Initiatives

N1. Local food supply chain

Audience: Extension Educators, Extension Specialists, NGOs, MDA

Initiative: Consumer demand for fresh local produce has escalated in recent years presenting new and unique opportunities for Michigan farmers, wholesalers, distributors, retailers and food service providers. Shifting to a more local and regional supply chain with a significantly shortened distance from field to table can benefit many food chain participants. Supporting and encouraging this shift will require educational support. Our goal is to equip agricultural educators to assist Michigan farmers in shifting to more local and regional markets and food purchasers in shifting to a more local food supply chain that promotes economic, environmental and social sustainability.

Justification: Issues surrounding the current global commodity chain have recently made headlines. They include food safety and handling concerns brought on by recalls of contaminated vegetables; increasing food prices as petrochemical costs fluctuate; environmental impacts of large-scale monocultures; waste management challenges of factory-scale food processing operations; loss of biodiversity; quality, freshness and nutritional losses when food is shipped long distances to market; loss of jobs as farming and processing becomes increasingly concentrated and mechanized.

Activities: Funding partners identified and solicited. Program development and workshops presented on CSAs, farmers markets, farm stands and food safety.

PDP Budget: Mini-grants: \$4,000; Travel Scholarships: \$1,000

Short-term Outcomes: Matching funds secured from partners. Collaborate with the MSU Product Center and the MSU Economic Development AoE team to create professional development opportunities in local food supply chains.

Intermediate-term Outcomes: Increase agricultural educator knowledge in sustainable local food supply chains. Increase in programming associated with local food supply chains.

Long-term Outcomes: An increase in the percentage of Michigan's agri-economy produced through local food supply chains.

Evaluation: Number of workshops held and number of participants. Pre- and post-meeting evaluation instruments will be used to assess changes in knowledge and attitudes. Post-event surveys will be used to assess educator incorporation of knowledge in existing and new programming and audiences reached.

N2. Sustainable animal production

Audience: Extension Educators and Specialists, NRCS, MDA, Conservation Districts

Initiative: Agriculture is the second largest industry in Michigan (\$60 billion) and total livestock and livestock products represent around 40% of total agriculture cash receipts. The livestock sector is equally diverse in species raised and farm size. As land and livestock inputs and energy costs escalate, producers can look toward developing sustainable systems that maximize a complementary mix of crops and livestock and at the same time meet social and environmental demands of consumers. The goal is to encourage a more comprehensive approach to integrating crop and livestock systems on Michigan farms. Developing a training module for organizational partners—Extension, NRCS, MDA and others—will provide a clear and accurate understanding of the opportunities, tradeoffs and interactions of sustainable principles to educators involved with Michigan agriculture.

Justification: Livestock producers face several pressures in Michigan—not least of all increasing energy and input costs. Consumers are increasingly concerned about food safety and demanding verification of source and management methods and also questioning the environmental impact of livestock waste management. More and more growers are realizing that manure is an important biodegradable resource that achieves maximum utilization when composted or land-applied as a fertilizer for crop production.

Activities: Funding partners identified and solicited. Support attendance at regional manure management workshops and training. Support manure/fertilizer demonstration plots and animal-related projects.

PDP Budget: Mini-grants: \$3,500; Travel Scholarships: \$1,500

Short-term Outcomes: Matching funds secured from partners. Increase educator knowledge of manure management issues.

Intermediate-term Outcomes: Educator programs lead to farmer attitude and behavior changes in manure management practices.

Long-term Outcomes: Economic and environmental benefits from improved nutrient management.

Evaluation: Workshop attendance. Pre- and post-meeting evaluation instruments will be used to assess changes in knowledge and attitudes. Post-event surveys will be used to assess educator incorporation of knowledge in existing and new programming and audiences reached. Demonstration projects funded for manure/fertilizer/animal research.

N3. Transition of farms to organic and sustainable production

Audience: Extension Educators and Specialists, NRCS, NGOs, MDA, Cons. Districts

Initiative: Consumer demand for organic products has helped encourage an increase in organic farming and sustainable practices over the past 20 years. The goal of this initiative is to serve the agriculture community to provide assistance to organic and

sustainable transition farmers to be successful and reduce risks. Agency personnel will be the focus of this training so that they may transfer the knowledge to farmers. The training will provide information on agronomic production system (such as supplying nutrient needs, weed and insect control practices and yield expectations), market considerations (such as crop and variety selection to match demand, grain quality parameters, product storage and delivery requirements), financial considerations (such as payment timing, cash flow delays, and input costs payment well ahead of production, capturing added value during transition years). Organic certification will be another area of focus.

Justification: The organic trade association has indicated that the demand has been growing by more than 20% per year in the past decade. This opportunity is important to many farmers, especially small and mid-sized family-owned farms to ensure financial viability and stability. The agriculture industry benefits by supplying the demand in this fastest growing area of food and feed production. It provides an alternative for all sizes of farm operations. The demand for organic products appears to be outpacing the capacity of current organic-certified farms to supply. If the current increase in demand continues, the opportunity will be even greater for families to transition to organic successfully.

Activities: Funding partners identified and solicited. Support attendance at organic transition workshops and conferences. Support projects to develop outreach materials, tours and demonstration/research projects.

PDP Budget: Mini-grants: \$4,000; Travel Scholarships: \$1,000

Short-term Outcomes: Matching funds secured from partners. Educators increase knowledge of organic transition and sustainable production practices.

Intermediate-term Outcomes: Educator programs, outreach materials and demonstration projects support increases in farmers and acreage transitioned to organic production.

Long-term Outcomes: Demand for organic products increasingly met by Michigan agriculture.

Evaluation: Educator workshop/conference attendance. Pre- and post-meeting evaluation instruments will be used to assess changes in knowledge and attitudes. Post-event surveys will be used to assess educator incorporation of knowledge in existing and new programming and audiences reached. Demonstration projects funded for organic transition and sustainable production.

N4. Cover crops

Audience: Extension Educators and Specialists, NRCS, NGOs, MDA, Cons. Districts

Initiative: Current agricultural practices break the natural ecological cycle and biodiversity of a continuous living cover. Our soils become more prone to surface soil erosion, loss of sediment and nutrients to rivers and lakes, increased wind erosion and increased flooding. Inappropriate tillage can cause decreased soil quality, poorer soil structure, less carbon stored in the soil and less wildlife habitat. The goal of this initiative is to create a greater understanding of the role cover crops play in environmentally friendly farming systems and a greater appreciation of ecosystem functionality provided by a landscape that is green the entire year.

Justification: Cover crops protect the soil from erosion and nutrient runoff, sequester carbon in the soil, improve soil quality and soil health, promote healthier foods,

decrease energy costs and improve wildlife habitat. Less than 10% of Michigan farmers are using cover crops in their production systems.

Activities: Funding partners identified and solicited. Support attendance at cover crop meetings and conferences. Support projects to develop outreach materials, tours and demonstration/research projects.

PDP Budget: Mini-grants: \$3,000; Travel Scholarships: \$2,000

Short-term Outcomes: Matching funds secured from partners. Educators increase knowledge of sustainable production systems using cover crops.

Intermediate-term Outcomes: Educator programming leads to increased adoption by farmers of cover crops into their production systems.

Long-term Outcomes: Economic, environmental and quality of life benefits to Michigan farmers and citizens.

Evaluation: Educator meeting/conference attendance. Pre- and post-meeting evaluation instruments will be used to assess changes in knowledge and attitudes. Post-event surveys will be used to assess educator incorporation of knowledge in existing and new programming and audiences reached. Demonstration projects funded for cover crop research.

N5. Other sustainable agriculture support

Audience: Extension Educators and Specialists, NRCS, NGOs, MDA, Cons. Districts

Initiative: Mini-grants and travel scholarships can help educators, NRCS, governmental and non-governmental organizations develop and deliver professional development programs or demonstrations that promote sustainability of rural and urban communities. To receive these funds, applicants must submit a professional development proposal that addresses the sustainability of agriculture or their communities. These funds need to be used for their professional development and incorporated into their programs and educational activities.

Justification: The advisory group has recommended focusing a majority of Michigan NCR-SARE PDP resources toward the four major initiatives. However, educator support for other sustainable agriculture programs outside of those initiatives must be available and considered. This initiative addresses support for those deserving proposals.

Activities: Promote mini-grants and travel scholarships for educator programs in sustainable agriculture.

PDP Budget: Mini-grants: \$2000; Travel Scholarships: \$2000

Short-term Outcomes: Increase educator knowledge of sustainable agriculture.

Intermediate-term Outcomes: Educator behavior change to include sustainable agriculture in new and existing programming.

Long-term Outcomes: As sustainable agriculture professionals, educators will provide increased knowledge, awareness and adoption of practices through direct delivery to farmers.

Evaluation: Pre- and post-project surveys will be used to assess professional development and changes in knowledge and attitudes. Follow-up surveys will be used to evaluate the increase in sustainable agriculture programming and the effectiveness of the direct delivery to farmers.

Attachment 1: Advisory Group/Stakeholder Group Membership and Tentative Schedule of Meetings

Member name	Affiliation
Andrea Buchholz	MSU
Jim Bingen	MSU & MOFFA (NGO)
Mike Brewer	MSU
Elaine Brown	MIFFS (NGO)
Betsy Dierberger	NRCS
Tim Harrigan	MSU
Dan Hudson	MSUE
Jim Koan	Farmer & former NCR-SARE AC member
Dean Krauskopf	MSUE
Larry Leach	CSA and farmer
Gary Manley	Ag consultant and farmer
Juan Marinez	MSUE & NCR-SARE AC member
Laura Probyn	MSUE
Dan Rajzer	MSUE
Natalie Rector	MSUE
Robin Rosenbaum	MDA
Dan Rossman	MSUE
Mark Seamon	MSUE
John Simmons	Organic farmer
Robert Serrine	MSUE

Purpose of Meeting	Tentative Date
Teleconference	February 2009
Advisory Group Meeting	April 2009
Teleconference	June 2009
Teleconference	August 2009
Teleconference	October 2009
Advisory Group Meeting	November 2009
Other Teleconferences	As Needed

Table 1. Logic Model Format – Please submit a logic model for each initiative (new or continuing)

Title of Initiative: N1. Local Food Supply Chain

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-10 educators will deliver educational programs in the future addressing sustainable local food supply chain systems.	-Matching funds secured. -30 educators will increase their knowledge about the importance of developing sustainable local food supply chain systems.	-Number of programs. -Number of participants. -Pre- and post-meeting evaluation instruments will be used to assess changes in knowledge and attitudes. -Survey participants post event to determine use of information and audiences reached.	-Matching funds secured from partners. -Local Food Supply Chain content and materials. -Two regional local supply chain programs will be held involving several different disciplines. -30 educators will attend these sessions.	-Identify funding partners. -Solicit partner funding -Develop content and materials. -Schedule workshops. -Promote workshops. -Evaluate events. -Survey participants post event.	-NCR-SARE funds. -Partner funds. -State coordinator time. -MSU specialists' time. -MSU educators' time. -Subcommittee time. -Collaborations with the MSU Product Center for Agriculture and Natural Resources and the MSU Economic Development AoE team.

Title of Initiative: N2. Sustainable Animal Production

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-Changes in attitude toward nutrient management and the inclusion of sustainable principles in a wider range of Extension and education programming. -10 educators will deliver educational programs addressing sustainable animal production and nutrient management.	-Matching funds secured. -20 educators will increase their knowledge about sustainable animal production systems. -Mini-grants funded for plot and animal demonstration projects will reach 60 farmers and stakeholders.	-Educator workshop attendance. -Mini-grants awarded. -Pre- and post-project surveys will be used to assess professional development and changes in knowledge and attitudes. -Follow-up surveys to evaluate increase in sustainable animal production programming and effectiveness of direct delivery to farmers.	-2-4 mini-grants will be funded supporting education and demonstration projects. -3-6 travel scholarships will be funded for educator training in sustainable animal production. -New partnerships across disciplines will be established.	-Identify funding partners. -Solicit partner funding. -Promote sustainable animal production mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects.	-NCR-SARE funds. -Partner funds. -State coordinator time. -MSU specialists' time. -MSU educators' time. -Subcommittee time. -Field days/ tours.

Title of Initiative: **N3. Transition of Farms to Organic and Sustainable Production**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-Changes in attitude toward organic transition and the inclusion of sustainable principles in a wider range of Extension and education programming. -10 educators will deliver educational programs addressing organic transitioning practices.	-Matching funds secured. -20 educators will increase their knowledge about organic transition. -Mini-grants funded for organic transition demonstration projects will reach 60 farmers and stakeholders.	-Educator conference attendance. -Mini-grants awarded. -Pre- and post-project surveys will be used to assess professional development and changes in knowledge. -Follow-up surveys to evaluate increase in organic transition and sustainable production programming and effectiveness of direct delivery to farmers.	-2-4 mini-grants will be funded supporting education and demonstration projects. -3-6 travel scholarships will be funded for educator training in organic transition. -Outreach materials developed for organic transition.	-Identify funding partners. -Solicit partner funding. -Promote organic transition and sustainable production mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects.	-NCR-SARE funds. -Partner funds. -State coordinator time. -MSU specialists' time. -MSU educators' time. -Subcommittee time. - Field days/ tours.

Title of Initiative: **N4. Cover Crops**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-Changes in attitude toward cover crops and their inclusion in a wider range of Extension and education programming. -20 educators will deliver educational programs including cover crop practices.	-Matching funds secured. -30 educators will increase their knowledge about cover crop systems. -Mini-grants funded for cover crop demonstration projects will reach 60 farmers and stakeholders.	-Educator conference attendance. -Mini-grants awarded. -Pre- and post-project surveys will be used to assess professional development and changes in knowledge. -Follow-up surveys to evaluate increase in cover crop systems programming and effectiveness of direct delivery to farmers.	-2-4 mini-grants will be funded supporting education and demonstration projects. -3-6 travel scholarships will be funded for educator training in cover crop systems.	-Identify funding partners. -Solicit partner funding. -Promote cover crop mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects.	-NCR-SARE funds. -Partner funds. -State coordinator time. -MSU specialists' time. -MSU educators' time. -Subcommittee time. - Field days/ tours.

Title of Initiative: **N5. Other Sustainable Agriculture Support**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-Changes in attitude toward sustainable agriculture and its inclusion in a wider range of Extension and education programming. -15 educators will deliver educational programs including sustainable agriculture practices.	-10 educators will increase their knowledge about sustainable agriculture practices. -Mini-grants and travel scholarships funded for sustainable agriculture education and projects.	-Educator conference attendance. -Mini-grants awarded. -Travel Scholarships awarded. -Pre- and post-project surveys will be used to assess professional development and changes in knowledge. -Follow-up surveys to evaluate increase in cover crop systems programming and effectiveness of direct delivery to farmers.	-1-2 mini-grants will be funded supporting education and demonstration projects. -2-4 travel scholarships will be funded for educator training in sustainable agriculture practices.	-Promote mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects.	-NCR-SARE funds. -State coordinator time. -Educators' time.

* **Short Term Outcomes:** Learning, Awareness, Knowledge, Attitudes, Skills, Opinions, Aspirations, Motivations
 ** **Intermediate Outcomes:** Action, Behavior, Practice, Decision-making, Policies, Social Action
 (UW Cooperative Extension-Program Development & Evaluation 2003)