

**North Central Region SARE Professional Development Program  
Michigan Sustainable Agriculture Plan of Work  
Calendar Year 2011  
by Dale R. Mutch & Dean G. Baas**

**Section 1: Background**

The Michigan SARE State Sustainable Agriculture PDP program is coordinated through the Michigan State University (MSU) W.K. Kellogg Biological Station (KBS) and Extension Land & Water Unit under the co-management of Dr. Dale R. Mutch and Dr. Dean G. Baas. Dean is partially funded by SARE, while Dale is supported by other sources. Together, with the input of the advisory board, they jointly develop and set the direction for sustainable agriculture in Michigan. Dale provides overall leadership and coordination with MSU Extension (MSUE), MSU BioAgResearch (formerly the Michigan Ag Experiment Stations) and the College of Agriculture and Natural Resources. Dean manages the implementation of the POW by coordinating initiatives (with leaders), travel scholarships, mini-grants and promotion. Dale and Dean are both located at KBS allowing them to meet regularly, formally and informally, to discuss, monitor and implement the POW. Tom Rorabaugh, retired County Extension Director, is hired part-time temporary to assist in the management and promotion of the Michigan SARE PDP program.

This past year (2010) has been a challenging year for MSUE due to a major reorganization from five regions and 83 counties to four institutes serving 13 multi-county districts. The reorganization produced uncertainty for Extension educators concerning their future roles in the new MSUE structure. The uncertainty and demands of the reorganization process delayed the implementation of some 2010 initiatives (Table 1) and reduced the number of applications for mini-grants and travel scholarships from previous years. With the completion of the reorganization and the establishment of Extension educator roles efforts have been renewed to complete 2010 initiatives. Dr. Rob Serrine, Extension educator has accepted the leadership of the Sustainable Organic Agriculture – New Agriculture Network (NAN) Webinars initiative and convened a meeting with a 21 member advisory group from Michigan, Indiana and Illinois to develop a plan to meet the project objectives in 2011. Thurlow Kable, Extension educator and new advisory board member, has agreed to drive completion of the Sustainable Animal Agriculture initiative in 2011. We will work with the new created MSUE Preparing Michigan’s Children and Youth for the Future Institute to identify a resource to implement the Youth Educator Professional Development Initiative.

**Table 1:** 2010 initiatives and associated SARE PDP funds.

Initiative	SARE PDP Funds (\$)
Local food supply chain – regional training	4,000
*Sustainable organic agriculture – New Agriculture Network (NAN) Webinars	15,000
Sustainable animal production	4,500
Youth educator professional development	3,000
Other sustainable agriculture support	4,000
<b>Total</b>	<b>30,500</b>

\*Tri-state initiative (MI, IN and IL) with \$5,000 contribution from each state.

Five mini-grants and nine travel scholarships reached 87 educators in 2010 including extension, university, state/federal/tribal and NGO educators. Of note, a mini-grant supporting the Doing Indigenous Gardening Conference uniquely targeted tribal communities in Michigan as participants, and featured tribal presenters from around the Great Lakes with expertise in sustainable agriculture. All five mini-grants funded a portion of their programs, therefore leveraging NCR-SARE PDP funds with other funding sources improving the depth and quality of sustainable agriculture professional development.

We believe the new MSUE organization and the reassignment of Extension educators to new roles provides an opportunity to provide professional development that will integrate sustainable agriculture into a greater number of projects and programs in Michigan in the future.

**Approach for 2011:** Our restructured advisory board actively identified the 2011 Michigan sustainable agriculture initiatives. The co-coordinators concur and the Michigan team recommends the following:

- 1) Continue the initiative for Scaling-up Local Foods by leveraging the 2010 regional training for a local programs
- 2) Continue the Other Sustainable Agriculture initiative
- 3) Establish a new initiative for Sustainable Nutrient Management
- 4) Establish a new initiative for Sustainable Invasive Pest Management
- 5) Establish a new initiative for Practical Farm Sustainable Economic Analysis
- 6) Establish a new initiative for Strategic Grant Development

## **Section 2: Stakeholder Involvement**

In 2010, membership of the advisory board changed with 11 members departing and the addition of six new members (Attachment 1). The reduction in the size of the board has improved participation and the addition of new members has brought renewed energy to the group. The restructured advisory group recommended the 2011 initiatives listed above and detailed below. The advisory group is taking a more active role in leading and promoting the remaining 2010 and new 2011 initiatives.

The purpose of this advisory group is to advise the coordinators, 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 about SARE PDP.

## **Section 3: Face of SARE**

The Michigan SARE web site ([www.misare.msu.edu](http://www.misare.msu.edu)) contains information about the Michigan PDP program, application forms for mini-grants and travel scholarships and links to other SARE grant programs on the NCR-SARE site. While considerable information has been compiled on the Michigan SARE website, we were unable to implement the website redesign and update in 2010. Implementing the changes will be a priority in 2011. Included in the redesign will be video interviews with seven Farmer/Rancher, four Research and Education, one Professional Development Program, one Youth, one Youth Educator, two mini-grant and three travel scholarship grant recipients.

Michigan will promote SARE at a variety of events, field days and meetings, in 2011 such as the Michigan Organic Conference, MSU Forage Technology Conference, etc. where sustainable agriculture audiences can be reached. SARE booths are planned for the 2011 Small Farms Conference in Grayling, MI and the Michigan Family Farms Conference, Lakeview, MI. In addition, we will deliver a grant writing session at the Michigan Family Farms Conference.

We will increase our promotion to MSU departments and the new MSU Institutes to increase the awareness of SARE, NCR-SARE and SARE grant programs. We will continue to provide support and advice to applicants for Farmer Rancher, Research and Education, Professional Development, Graduate Student, Youth and Youth Educator Grants. The response to SARE grant programs and the exposure provided by the Michigan PDP program are evidence of expanding commitment to sustainable agriculture in Michigan. These efforts are producing a viable network of agricultural professionals, knowledgeable in sustainable agriculture, working to make Michigan more successful in adopting sustainable agriculture's practices and principles.

#### **Section 4: Professional Development Initiatives**

We realized with the carry-over of existing initiatives and the addition of four new initiatives, that a new approach was required to assure the completion of this work. To support this increased level of activity, we have enlisted initiative leaders (from the advisory group where appropriate, see below) to facilitate their implementation.

The professional development initiatives will be implemented through the awarding of mini-grants and travel scholarships that contribute to the desired outcomes. The advisory board determined the total initiative funding and the distribution of funds between mini-grants and travel scholarships. The applications for mini-grants and travel scholarships are administered through the Michigan SARE website ([www.misare.msu.edu](http://www.misare.msu.edu)). Co-coordinators and initiative leaders consult on applications to ensure awards meet the initiative objectives. Mini-grant recipients are required to complete the SARE on-line sustainable agriculture course prior to receiving funding.

#### **Existing initiatives continued in 2010**

##### **E1. Scaling-up local food systems**

Audience: Extension educators, Extension Specialists, NGOs, MDA

Initiative: Leverage the regional training implemented through Wisconsin last year to provide local professional development in scaling-up local food systems to agricultural educators in Michigan. The participating Michigan team is positioned to share the regional training information and resources with state agricultural educators to increase their knowledge of structures and processes to more effectively scale-up local food systems.

Justification: The demand for local foods has been increasing as consumers recognize the benefits of locally grown products. Current supply chains do not have the capacity to supply local food on a large scale. Scaling-up offers producers an opportunity to diversify their markets into the wholesale, fresh markets. Entering these markets requires new organizational structures and rules for transparency, aggregation and differentiation when dealing with supply chain partners.

Initiative Leader: Susan Smalley, C.S. Mott Group for Sustainable Foods Systems and advisory board member

Activities: The Michigan team is developing workshops and events to provide professional development in scaling-up local foods systems. Under the leadership of Dr. Susan Smalley, the team is developing programs to address the scaling-up local foods issues and needs in Michigan. This initiative will be integrated with other local foods programs where appropriate.

PDP Budget: Mini-grants: \$5,000

Outcomes/Evaluation: See Program Logic Models, Table 1

##### **E2. 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.

Initiative Leaders: Dale Mutch and Dean Baas, in consultation with appropriate advisory board members

PDP Budget: Mini-grants: \$1500; Travel Scholarships: \$1500

Outcomes/Evaluation: See Program Logic Models, Table 2

## **New initiatives in 2010**

### **N1. Sustainable Nutrient Management**

Audience: Extension Educators, Extension Specialists, Cons. Districts

Initiative: Nutrient management recommendations remain an important part of sustainable production viability having an important role in environmental influences as well as economic return. Partnering with MSU Extension Specialists on campus, this initiative will facilitate training for educators and specialists on current research, field protocols, and recommendations in the area of soil fertility and nutrient management. Educators will be able to convey a common message for sustainable nutrient management.

Justification: Environmental implications as well as rising nutrient input costs have put a greater focus on sustainable soil nutrient recommendations. Producers rely on MSU Extension educators to provide current research on nutrient recommendations and changes to the MSU nutrient recommendations. Educational sessions will allow educators to be brought up-to-date in these areas and allow for a correct, consistent message conveying both environmental concerns and economic factors to be shared with all stakeholders.

Initiative Leader: Emily Sneller, Extension Educator and new advisory board member

Activities: Emily Sneller is leading this initiative and identifying professional development opportunities in sustainable nutrient management. Initiative activities will include mini-grants for educational train-the-trainer workshops and exterior conferences as well as travel scholarships to attend these workshops and conferences.

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

Outcomes/Evaluation: See Program Logic Models, Table 3

### **N2. Sustainable Invasive Pest Management**

Audience: Extension Educators, Extension Specialists and NGOs, State Department of Agriculture, Conservation District personnel

Initiative: Native plants and predators can provide natural biological control of invasive pests. Research-based information has been developed on enhancing biological controls for enhancing invasive pest management. In collaboration with MSU Entomology, this initiative will provide professional development for agricultural educators on the use of biological pest control to improve the sustainability of agricultural systems.

Justification: The use of native plants and predators for natural biological control can reduce pesticide use while improving soil, water and biodiversity for agricultural systems.

This initiative will provide professional development in ecologically-based pest management leveraging information from the Michigan SARE R & E Grant, *Utilizing Native Plants to Enhance Insect and Weed Biological Control* and the Michigan Farmer/Rancher Grant, *Integrating Bats into Organic Pest Management*.

Initiative Leader: Dr. Rufus Isaacs, MSU Entomology and new advisory group member

Activities: Dr. Rufus Isaacs will lead this initiative and identify professional development activities in sustainable invasive pest management. Initiative activities will include mini-grants for educational train-the-trainer workshops and exterior conferences as well as travel scholarships to attend these workshops and conferences.

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

Outcomes/Evaluation: See Program Logic Models, Table 4

### **N3. Practical Farm Sustainable Economic Analysis**

Audience: Extension Educators, Extension Specialists and NGOs, State Department of Agriculture, Conservation District personnel

Initiative: Evaluating the economic impact of sustainable practices on small- to medium-sized farms is difficult with many of the complex accounting systems currently available. This initiative will identify/develop a simplified economic analysis to assist farmers in making sustainable practice decisions. Educational materials and workshops will be developed to train agricultural educators on the use of this analysis.

Justification: Educators promoting sustainable agricultural practices are often asked by farmers to identify the cost of adopting sustainable agricultural practices. A simplified economic analysis will provide educators and farmers with important information to evaluate the benefits of adopting sustainable agricultural practices. The complexity of existing farm accounting systems makes them inappropriate for the basic analyses required as educators and farmers discuss sustainable agriculture alternatives for their operations.

Initiative Leader: Dennis Stein, Extension Educator and new advisory board member

Activities: Dennis Stein will lead this initiative to develop a simplified sustainable economic analysis system for use by educators and small- to medium-sized farmers. Dennis maintains a yearly crop budget simulation tool for Michigan farmers at <https://www.msu.edu/~steind/>. This initiative will include train-the-trainer workshops for educators on the features and use of this system. Travel scholarships will be available to assist educators attending these workshops.

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

Outcomes/Evaluation: See Program Logic Models, Table 5

### **N4. Strategic Grant Development**

Audience: Extension Educators, Extension Specialists and NGOs, State Department of Agriculture, Conservation District personnel

Initiative: Develop and implement workshops for agricultural educators to develop grant writing skills and provide grant writing assistance. The focus of these workshops will be assistance for writing grants for sustainable agriculture research, education and extension.

Justification: Increasingly, agriculture educators are obtaining a portion of their funding through grants. Assisting them in preparing grant proposals for sustainable agriculture projects will increase sustainable research, education and extension in Michigan.

Initiative Leader: Tom Rorabaugh, Michigan SARE Program Assistant

Activities: Develop and implement sustainable grant writing workshops.

PDP Budget: Mini-grants: \$2,000; Travel Scholarships: \$1,000

Outcomes/Evaluation: See Program Logic Models, Table 6

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

<b>Member name</b>	<b>Affiliation</b>
Elaine Brown	MIFFS (NGO)
Betsy Dierberger	NRCS
Julie Doll (new)	MSU KBS
Rufus Isaacs (new)	MSU Entomology
Juan Marinez	MSUE & NCR-SARE AC member
Dan Rajzer	MSUE
Natalie Rector	MSUE
Robin Rosenbaum	MDA
John Simmons	Organic farmer
Robert Serrine	MSUE
Susan Smalley	MSU C.S. Mott Group
Emily Sneller (new)	MSUE
Dennis Stein (new)	MSUE
Erin Taylor (new)	MSU Crop and Soil Science
Steve Tennes (new)	Farmer
Kable Thurlow (new)	MSUE

<b>Purpose of Meeting</b>	<b>Tentative Date</b>
Teleconference	February 2011
Advisory Group Meeting	April 2011
Teleconference	June 2011
Teleconference	August 2011
Teleconference	October 2011
Advisory Group Meeting	November 2011
Other Teleconferences	As Needed

## Program Logic Models

**Table 1: E1. Scaling-up local food systems**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
<p>-5 educators will deliver educational programs addressing scaling-up local food system issues.</p> <p>-Increase in the number of local producers supplying wholesale, fresh markets.</p>	<p>-Leverage and disseminate information and resources from the regional training for Michigan educators.</p> <p>-10 educators will increase their knowledge of structures and processes necessary to scale-up local food systems.</p>	<p>-Educator workshop attendance.</p> <p>-Mini-grants awarded.</p> <p>-Pre- and post-project surveys will be used to assess professional development and changes in knowledge and attitudes.</p> <p>-Follow-up surveys to evaluate increase in wholesale fresh market supply and effectiveness of direct delivery to producers.</p>	<p>-1 to 4 mini-grants will be funded supporting programs in scaling-up local food systems.</p> <p>-New partnerships across disciplines will be established.</p>	<p>-Develop and promote scaling-up local foods programs.</p> <p>-Survey participants post event.</p> <p>-Evaluate mini-grant projects.</p>	<p>-NCR-SARE funds.</p> <p>-Partner funds.</p> <p>-State coordinators' time.</p> <p>-MSU specialists' time.</p> <p>-MSU educators' time.</p> <p>-Workshops/ conferences.</p>

**Table 2: E2. Other sustainable agriculture support**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
<p>-Changes in attitude toward sustainable agriculture and its inclusion in a wider range of Extension and education programming.</p> <p>-10 educators will include sustainable agriculture in their programming.</p>	<p>-15 educators will increase their knowledge about sustainable agriculture practices.</p> <p>-Mini-grants and travel scholarships funded for sustainable agriculture education and projects.</p>	<p>-Educator conference attendance.</p> <p>-Mini-grants &amp; travel scholarships awarded.</p> <p>-Pre- and post-project surveys to assess professional development and changes in knowledge.</p> <p>-Follow-up surveys to evaluate direct delivery to producers.</p>	<p>-1 to 2 mini-grants will be funded supporting education and demonstration projects.</p> <p>-2 to 4 travel scholarships will be funded for educator training in sustainable agriculture practices.</p>	<p>-Promote mini-grants and travel scholarships.</p> <p>-Survey participants post event.</p> <p>-Evaluate mini-grant projects.</p>	<p>-NCR-SARE funds.</p> <p>-Partner funds.</p> <p>-State coordinators' time.</p> <p>-Educators' time.</p>

**Table 3: N1. Sustainable Nutrient Management**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-5 educators will deliver educational programs or develop materials addressing sustainable nutrient management issues. -Increased farmer adoption of sustainable nutrient management practices.	-10 to 15 educators will increase their knowledge of sustainable nutrient management topics. -Mini-grants and travel scholarships funded for sustainable nutrient management education and projects.	-Educator conference attendance. -Mini-grants & travel scholarships awarded. -Pre- and post-project surveys to assess professional development and changes in knowledge. -Follow-up surveys to evaluate direct delivery to farmers.	-2 to 4 mini-grants will be funded supporting education and demonstration projects. -2 to 4 travel scholarships will be funded for educator training in sustainable nutrient management practices.	-Promote mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects	-NCR-SARE funds. -Partner funds. -State coordinators' time. -Educators' time.

**Table 4: N2. Sustainable Invasive Pest Management**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
-5 educators will deliver educational programs or develop materials addressing sustainable invasive pest management issues. -Increased farmer adoption of sustainable invasive pest management practices.	-10 to 15 educators will increase their knowledge of sustainable invasive pest management topics. -Mini-grants and travel scholarships funded for sustainable invasive pest management education and projects.	-Educator conference attendance. -Mini-grants & travel scholarships awarded. -Pre- and post-project surveys to assess professional development and changes in knowledge. -Follow-up surveys to evaluate direct delivery to farmers.	-2 to 4 mini-grants will be funded supporting education and demonstration projects. -2 to 4 travel scholarships will be funded for educator training in sustainable invasive pest management practices.	-Promote mini-grants and travel scholarships. -Survey participants post event. -Evaluate mini-grant projects	-NCR-SARE funds. -Partner funds. -State coordinators' time. -Educators' time.



**Table 5: N3. Practical Farm Sustainable Economic Analysis**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
<p>-5 educators will include practical farm economic analysis in their sustainable agriculture programming and consultations.</p> <p>-Farmers will increase adoption of sustainable practices because of improved decision making using this analysis.</p>	<p>-10 educators will increase their knowledge of a practical farm sustainable economic analysis system.</p> <p>-Mini-grants and travel scholarships funded for support education in practical farm sustainable economic analysis.</p>	<p>-Mini-grant awarded and system developed.</p> <p>-Educator workshop attendance.</p> <p>-Pre- and post-project surveys will be used to assess professional development and changes in knowledge.</p> <p>-Follow-up surveys to evaluate use of the new system.</p>	<p>-1 mini-grant will be funded to develop a simplified farm sustainable economic analysis system.</p> <p>-A practical farm sustainable economic analysis system.</p> <p>-1 to 3 travel scholarships will be funded for training on the practical farm sustainable economic analysis system.</p>	<p>-Identify or develop a simplified system for farm sustainable economic analysis.</p> <p>-Develop and implement workshops for the practical farm sustainable economic analysis.</p> <p>-Promote workshops and travel scholarships.</p> <p>-Survey participants post event.</p> <p>-Evaluate project.</p>	<p>-NCR-SARE funds.</p> <p>-Partner funds.</p> <p>-State coordinators' time.</p> <p>-Entomology educator's time.</p> <p>-Educators' time.</p>

**Table 6: N3. Strategic Grant Writing**

Intermediate Outcomes**	Short Term Outcomes *	Outcome Measures	Outputs (including # participating)	Activities	Inputs
<p>-10 educators will submit sustainable grant proposals.</p> <p>-5 educators will receive funding from sustainable grant applications.</p>	<p>-10 to 15 educators will increase their knowledge of grant writing and submit sustainable grant proposals.</p> <p>-Mini-grants and travel scholarships funded for support to support strategic grant writing.</p>	<p>-Educator workshop attendance.</p> <p>-Pre- and post-project surveys will be used to assess professional development and changes in knowledge.</p> <p>-Follow-up surveys to evaluate the number of and success of sustainable grant applications.</p>	<p>-1 mini-grant will be funded to develop and implement sustainable grant writing workshops.</p> <p>-2 to 5 travel scholarships to support attending workshops.</p>	<p>-Develop grant writing materials and workshops.</p> <p>-Implement workshops for the strategic grant writing.</p> <p>-Promote workshops and travel scholarships.</p> <p>-Survey participants post event.</p>	<p>-NCR-SARE funds.</p> <p>-Partner funds.</p> <p>-State coordinators' time.</p> <p>-Educators' time.</p>

\* **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)