

2005 INNOVATIONS AWARDS PROGRAM

APPLICATION

Deadline: April 4, 2005

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1. Program Name

Michigan Agriculture Environmental Assurance Program (MAEAP)

2. Administering Agency

Michigan Department of Agriculture

3. Contact Person (Name and Title)

Janice Swartz Wilford, Program Manager
Environmental Stewardship Division

4. Address

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8. Web site Address

www.maeap.org (Note: This site contains only information for the Livestock System. The site is being redesigned to include both Farmstead and Cropping System information.)

9. Please provide a two-sentence description of the program.

The mission of the Michigan Agriculture Environmental Assurance Program (MAEAP) is to develop and promote a recognized, voluntary and proactive environmental assurance program that is targeted to Michigan's agriculture industry, which ensures that producers are engaging in cost-effective pollution prevention practices and are in compliance with applicable state and federal environmental regulations. The program uses a systems

approach developed for all Michigan farms (all size and all commodities and species) based on education, site specific risk assessments and third party verification.

10. How long has this program been operational (month and year)? **Note: the program must be between 9 months and 5 years old on May 1, 2005 to be considered.** The initial phase of the program was launched in December 2000.

11. Why was the program created? What problem[s] or issue[s] was it designed to address? **Indicate how the program applies to the “change driver” that you listed above.**

Michigan agriculture has a long history of protecting natural resources. Farmers and their families are directly affected by the quality of the water, soil, air and other natural resources on their farms. Additionally, a growing rural, non-farm population in Michigan has increased demands for the responsible use of natural resources and the protection of environmental quality. To sustain a growing and vibrant agricultural economy in Michigan while continuing to effectively protect the environment and human health, state agencies realized that to effectively protect the environment and human health, future agricultural-environmental programs must embrace the philosophy that pollutants should be reduced through a multi-media systems approach that emphasizes pollution prevention. Many pollution prevention programs did exist before MAEAP was implemented. However, a goal of this new initiative was to maximize benefits to the environmental and human health through a comprehensive program, using existing program criteria as a foundation augmented with new pollution prevention initiatives, engaging agricultural stakeholders in program development and implementation, and creating government efficiency through a broad partnership effort.

Michigan’s diverse agriculture, second only to California, creates challenges regarding understanding and complying with a myriad of state and federal environmental laws and to conforming to best management practices. When asking how to best address environmental concerns - or even which concerns to address - farmers were often confused and frustrated to receive inconsistent answers from state and federal agencies, university and conservation district staff who provide technical assistance. Producers wanted to know that when they invested in pollution prevention that they had used appropriate standards for their particular risk. Michigan producers were willing to meet a high environmental standard as long as there was consensus that the required standard was adequate.

The program was designed with three systems – Livestock, Farmstead and Cropping. Livestock was first addressed because social, regulatory and environmental issues needed prompt attention at these facilities. Livestock production is diverse in Michigan. Although the average dairy milking herd is 92 cows, large, more concentrated operations have also located and grown here. At the time the program was developed, Michigan did not issue National Pollutant Discharge Elimination System (NPDES) permits to livestock facilities. This regulatory stance was controversial. Livestock producers wanted to have assurance that their practices not only were protective of the environment but they would

not become a target for an environmental interest group law suit. Farmers felt that by adopting a high performance bar, they could accomplish both objectives.

12. Describe the specific activities and operations of the program in chronological order.

December 2000

- The MAEAP Partnership Agreement was signed by the Michigan Department of Agriculture, the Michigan Department of Environmental Quality, Michigan State University, Michigan State University Extension, Michigan State University Agriculture Experiment Station, Michigan Farm Bureau, and the Natural Resources Conservation Service. Additional partners included the Michigan Corn Growers Association, Michigan Integrated Food and Farming Systems, Michigan United Conservation Clubs, Michigan Association of Conservation Districts, Michigan Soybean Promotion Committee, Michigan Pork Producers Association, Michigan Township Association, Michigan Cattlemen's Association, Michigan Milk Producer's Association, and the Michigan Allied Poultry Industries, Inc.

January 2001 – December 2001

- Program manager hired by Michigan Department of Agriculture.
- Program launched following stakeholder group discussions and focus group research.
- An approach was developed that uses three systems (Livestock, Farmstead and Cropping) and three phases (Education, Risk Assessments/Environmental Management Plans, and Verification).
- The Comprehensive Nutrient Management Plan (CNMP) was adopted as the Environmental Management Plan for the Livestock System.
- Decisions were made to use Natural Resources Conservation Service (NRCS) technical standards for new practices.
- A stakeholder structure was developed establishing MAEAP Partners, a Steering Committee and an Administrative Committee. Several sub-committees were established with state and federal agency, university and industry, conservation and environmental representatives. A CNMP Committee was formed to discuss issues needing uniform interpretation.
- A livestock pilot group was identified to develop CNMPs for specific farms prior to verification.
- A core group of MAEAP partners traveled to Washington DC to present program plans for the Livestock System to USDA NRCS and USEPA representatives.
- USEPA representatives toured Michigan farms involved in MAEAP.
- The first "Phase 1" educational sessions were delivered at locations around the state. (Continued annually during the late fall and winter months.)
- Training was developed for private consultants to develop CNMPs.
- Legislation passed (HB 5013) to grant confidentiality for information provided in connection with a 'conservation plan' and authority for MDA to grant verification when requirements are met.

January 2002 – December 2002

- First farms were verified by MDA staff in the Livestock System.

- MDEQ and USEPA adopted an Environmental Council of States (Innovation) Agreement that gave Concentrated Animal Feeding Operations (CAFOs) that hadn't had a discharge the opportunity to complete the MAEAP Livestock System (including CNMP development and MDA verification) in lieu of applying for coverage under an NPDES general permit.
- The Farm*A*Syst was adopted as the risk management assessment tool for the Farmstead System, broadening MAEAP access to all farms with a farmstead site.
- The Farm*A*Syst was modified to include applicable state and federal environmental regulations and Right to Farm practices as a part of the required elements for MAEAP system verification.
- MAEAP Specialists were funded in seven conservation districts to assist landowners with MAEAP components.

January 2003 - December 2003

- First farms were verified by MDA staff in the Farmstead System.
- First statewide environmental conference – ACE - (Agriculture's Conference on the Environment) held in Lansing with over 600 in attendance.
- Work began to develop the Cropping System.

January 2004 – December 2004

- Progressive Planning – a component of the Livestock System – was developed to assist small and medium sized livestock facility owners to prepare for a CNMP, using a local contact, step-by-step approach. Local coordinators received training.
- The Field*A*Syst was modified and changed to be the Crop*A*Syst for the Cropping System. The risk assessment includes applicable state and federal environmental regulations and Right to Farm practices as a part of the required elements for MAEAP system verification.
- Phase 1 education sessions continue to be held but are now localized, organized by local conservation district and MSU-Extension groups - 30 for this year.
- Core MAEAP group travels to Washington DC to discuss linkage with the Farm Bill's Conservation Security Program (CSP) as an enhancement pilot component.
- MAEAP partner list expands beyond livestock and initial group to almost 30 groups. (list attached)

January 2005 – March 2005

- First farms request verification in the Cropping System.
- ACE conference is combined with GreenStone Farm Credit and industry partner managing conference to increase environmental and managing awareness.

13. Why is the program a new and creative approach or method?

The program, by design, reaches beyond the agricultural industry for partners and works to maintain a structure that invites diverse participation. The partnership brings non-traditional partners to the table and engages them in discussions based in science to find problem consensus. This program is not specific to just one component of Michigan's agriculture but offers a program that is farm and site specific to comprehensively address environmental concerns. The system model allows for incorporating new rules,

regulations and practices. (An example of this is a recent requirement for Water Use Reporting and the use of Generally Accepted Agricultural and Management Practices (GAAMPs) for agricultural irrigators, developed this last year. Those elements have now been added to the Farmstead and Cropping Systems.) The program also offers a comprehensive approach to address ALL environmental risks and exceeds state and federal requirements in several areas. In fact, it has raised the bar for pollution prevention in Michigan.

14. What were the program's start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

The program's start-up cost at MDA was approximately \$300,000 of General Fund dollars. This represented a program manager and, within the year, two field verifiers and all associated equipment – computers, associated office equipment, and access to state vehicles for farm inspections.

15. What are the program's annual operational costs?

Current annual cost is close to \$1.0 million represented as follows:

MDA - \$300,000 General Fund dollars plus \$150,000 from MDEQ/USEPA Section 319 dollars. (Supports one program manager, three field verifiers and one half position administrative support and all associated expenses.)

Conservation Districts - \$192,500 from MDEQ/USEPA Section 319 dollars.

Industry support for educational efforts and promotion - \$100,000

In addition:

Farm Bureau has two staff who spend approximately half their time with MAEAP.

MSU-E has three agents who work full time with aspects of the program.

Over 250 individuals throughout the state promote MAEAP and/or provide technical assistance through MSU-E, industry organizations, conservation districts and state and federal agencies.

Other grants (Great Lakes Protection Fund, USDA, etc) used for evaluation, CNMP software development, computer template, educational efforts, adding regulatory compliance information to risk assessments - two million dollars over the length of the program.

16. How is the program funded?

Through state general funds, EPA Section 319 grants and assorted other grants and industry contributions.

17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

Yes, by amendment to 1994 PA 451, entitled "Natural Resources and Environmental Protection Act," (MCL 324.101 to 324.90106) by adding Part 82: Conservation Practices.

18. What equipment, technology and software are used to operate and administer this program?

Basic computer equipment including laptops for the field staff, MMP (Manure Management Planner) software from Purdue, a Michigan-designed computer template and various conservation work sheets available through NRCS. The MAEAP web site is used extensively for the Livestock System. An MSU site is currently used for the Farmstead and Cropping System but will move to the MAEAP site by the end of the year.

19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address.

Yes, this program definitely originated in Michigan. MAEAP was a collaborative effort that involved MDA, MDEQ, MSU, NRCS and Farm Bureau from its inception.

Members of that initial group include:

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The program innovator is Janice Wilford at the contact information shown earlier in this document.

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

Similar programs generally do not offer comprehensive programs for ALL farms that are commodity and site specific with risk assessment tools that address all soil and water resource concerns, include air quality when possible, incorporate all applicable state and federal environmental regulations and require third party inspections. All have strong educational components and are voluntary.

California Dairy Quality Assurance Program – dairy specific. Includes animal health. No verification.

Florida CARES – Livestock only. Best Management Practices (BMP) driven, does not address all resource concerns. Nitrogen, not Phosphorus, based. Regional program. No verification.

Louisiana Master Farmer – species specific programs. More than environmental – includes genetics, marketing, etc. Uses BMPs linked to NRCS conservation planning and technical guidance. Working with Arkansas and Mississippi.

Georgia Agriculture Recognition Program – Encourages environmental management system adoption, sets goals and allows farmers to choose how to address risk. No verification or consistent standards.

Ohio Agriculture Alliance – evaluates three natural resource concerns with self audit.

21. Has the program been fully implemented? If NO, what actions remain to be taken? Cropping System verifications will begin this spring for ‘traditional’ Michigan field crops.

Additional assessments will come online as follows with verifications following:

Cropping System Timetable

By midsummer 2005

Nursery - field and container grown plants

Tree and small fruit

Revision of current field crops

By January 1, 2006

Greenhouse and vegetable

22. Briefly evaluate (pro and con) the program’s effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

The CNMP was developed early in Michigan and actually provided the template for federal agencies to follow. As a result of Michigan’s early efforts, Michigan was the only state to offer a financial incentive for CNMP development in the first year of the 2002 Farm Bill. To date, \$1,461,717 has been used by Michigan livestock producers for CNMP development through Farm Bill dollars.

Many issues have come to the table regarding the appropriate level of management and practices to assure environmental protection, especially on livestock farms. Several of these discussions continue, such as groundwater concerns when using vegetated filter strips to capture nutrients. But many have received resolution. As these areas of concern have consensus, they are added on the MAEAP web site (www.maeap.org) to a document called Frequently Asked Questions. A quick link can be found at the home page of the web site.

Within the Q/A document referenced above is a worksheet for determining a variance to well isolation distances. Michigan law requires an 800 foot isolation distance to public wells – which include all Michigan farms that hire at least one person and all dairies. This law was not being enforced and was generally ignored across the state. Working with MDEQ, a worksheet was developed to provide guidance for existing well and to help

identify risk. This worksheet is now incorporated into NRCS technical standards and is approved by MDEQ.

Additional commodity groups in Michigan have come to MAEAP with requests for commodity specific risk assessments, with education and verification. Although we are resource constrained, the goal is to have a comprehensive program for all commodities. A recent example is the request from the Michigan Nursery and Landscape Association to become a MAEAP partner and encourage their membership's involvement in MAEAP. This positive growth provides challenges to keep the MAEAP message concise and the standards high.

If a problem is not resolved, our work is not complete.

23. How has the program grown and/or changed since its inception?

The initial focus group of farmers asked that we identify all applicable environmental regulations, tell them how to address them, point them to cost share if it is available, and then verify what they have done. No one had any idea how long the list of requirements would be. The program has used tighter controls and a commitment to accepted standards and regulations – certainly more than originally envisioned. While promoting and aspiring for 'practical' approaches, the program remains committed to practices that are environmentally defensible.

The program was originally envisioned as an option to permits for large livestock operations. The pollution prevention bar was set high enough that, currently, an option exists for those facilities that haven't discharged, but the original vision – voluntary and comprehensive for ALL farms – is the vision that is re-emerging. The program participation is available to all, in addition to other state and/or federal requirements.

As the program has developed, there is much more local, field support for program components. As an example, Michigan Milk Producers Association has trained all their field force to understand CNMPs and the progressive planning approach. They assist their membership as they do their more traditional duties on dairies. Technicians in conservation districts now have a much more structured education/development plan so that they can provide more detailed and comprehensive assistance to their customers.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

- A commitment for the long haul from a diverse group of partners.
- Engaging all state and federal partners, university experts, industry and conservation and environmental groups in the process and in agreement on the standards.
- Pressure from farmers to 'lower the bar'.
- Lack of available cost share for most changes that need to be made on farms.
- Lack of public appreciation for the program's thoroughness.

- Discouragement - the road from initial education to eventual verification is long for most producers. Partners must thoroughly understand the program and commit to providing appropriate support.

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