Rose Lake Plant Materials Center

Autumn Newsletter 2013

Michigan Agricultural Environmental Assurance Program Verifies Rose Lake Plant Materials Center

MAEAP recognizes USDA-NRCS as 1800th verification

The Michigan Agriculture Environmental Assurance Program (MAEAP) verified the USDA-NRCS Rose Lake Plant Materials Center as meeting the standards of environmental protection established by the MAEAP program. The Plant Materials Center has become verified in the Greenhouse and Cropping Systems for implementing appropriate pollution prevention practices. The program assists farmers, helping them comply with state and federal environmental regulations and with Right to Farm practices. By becoming verified the Plant Materials Center not only insures responsible farming techniques but also shows that they care for their community. Technical assistance was provided by the Clinton Conservation District.

PM Staff by MEAP verification sign. Left to Right: John Durling, Elaine Gerona, John Leif, Sergio Perez

When asked why they became verified manager John Leif commented, "MAEAP verification helps us insure that the Rose Lake Plant Materials Center is operating our greenhouse and field operations in a way that is environmentally responsible. It allows us to improve our knowledge of good agricultural management practices and makes our operation more efficient. The MAEAP verification process also allows the Center to showcase its commitment to environmental stewardship and demonstrate many of the conservation principles that are encouraged by the Natural Resources Conservation Service."

During the verification process Conservation Technician Earl Krom worked through several assessment tools including Crop*A*Syst and Greenhouse*A*Syst to assess the condition of the greenhouse, fuel storage, pesticide storage and fertilizer application practices for compliance with MAEAP Standards and Michigan's Generally Accepted Agricultural Management Practices (GAAMPS). Recommendations for improvements to the facility were provided. Earl also helped develop an emergency response plan for the PMC. After completing the recommended improvements to the PMC Joe Kelpinski, a MAEAP verifier from the Michigan Department of Agriculture and Rural Development completed the verification process and determined that the Rose Lake Plant Materials Center met the standards for MAEAP verification.

The Michigan Agriculture Environmental Assurance Program is an innovative, proactive program that helps farms of all sizes and all commodities voluntarily prevent or minimize agricultural pollution risks. MAEAP's mission is to develop and implement a proactive environmental assurance program ensuring that Michigan farmers are engaging in cost-effective pollution prevention practices and working to comply with state and federal environmental regulations.

PMC Cover Crops Project Featured on Conservation District Tours

The Rose Lake Plant Materials Center has been involved in various cover crop projects since 2010. In 2010 and 2011 the project evaluated several varieties of oilseed radish, forage turnips, mustards, and rape. The project was done in partnership with Michigan State University and was conducted at the Plant Materials Center.

In 2012 the Shiawassee NRCS Field Office and the Shiawassee Conservation District provided contacts with Larry Lee, a cooperating farmer in southwest Shiawassee County. Larry has allowed the PMC to conduct cover crop research on the Lee Farms for the past two years. The emphasis of this research has been evaluating the effects of annual ryegrass, red clover, oilseed radish, and the combinations of the three on biomass accumulation and effect on the succeeding year's cash crop.

John Durling and John Leif describing cover crop project at Shiawassee CD field day.

In early September of 2013 the Shiawassee Conservation District hosted a field tour to highlight conservation practices in the county. Among the stops was the cover crop project at the Lee Farms. The participants viewed the corn plots planted on the 2012 cover crop plots and also viewed the cover crop plots established in August of 2013. About 140 growers, landowners, and conservation professionals attended the field tour.

In mid-September the Conservation District hosted a tour for the agri-science/FFA programs of five schools in the county. The cover crop project was part of that tour. In addition to the concept of cover crops there was much interest in no-till agriculture. Many of the students were not familiar with no-till agriculture and were amazed that Lee Farms has been using no-till crop production practices for over 30 years. About 240 agri-science/FFA students participated in the tour.

John Leif describing cover crops to Shiawassee County Agri-Science/ FFA students.

PMC and Michigan State University
Conduct Livestock Odor Abatement Project

The Rose Lake PMC was contacted by Mr. Jerry May, Michigan State University Extension Educator, about developing a project to use plant materials for odor abatement around confinement hog houses. In addition to MSU Extension, Dr. Wendy Powers and Dr. Jeff Li of the MSU Animal Science Department provided guidance in developing the protocol and help establishing the plantings. Jerry May found a hog producer in Centreville, MI willing to let us establish the study at his facility.

Switchgrass vegetative barrier planted in front of hog house pit fan.

The Rose Lake PMC also received guidance from the Plant Materials Centers in Maryland and New York, as they have been doing this type of research with chicken facilities over the past few years. The Rose Lake Plant Materials Center provided a selection of switchgrass, indiangrass, tamarack, and poplar for the project. The New York PMC provided Austree willow and the Maryland PMC provided coastal panicgrass for the project.

During the summer NRCS and MSU staff cooperatively managed the plantings, including weed barrier fabric and mulch applications, data collection, and replanting as needed. An intern with MSU Extension kept the plots watered and took photographs throughout the summer.

Personnel from the Animal Science Department have an instrument to evaluate odor intensity. That tool will be used in 2014 and 2015 to evaluate the effectiveness of odor abatement provided by the plants. The plantings will also be evaluated for porosity using a digital camera and ArcGIS software.

Hog house with pit vent fan (prior to vegetative barrier planting).

Natural Resources Conservation Service

Helping People Help the Land

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