

MMPA's 2009 Applied Research Funding

Last fall, MMPA began funding a research project through the cooperative's Applied Research Funding Program which is financed by a one cent per hundredweight deduction from MMPA members' September milk production. The board of directors, with input from the MMPA Advisory Committee, reviewed several proposals before deciding to support the second year of last year's applied research funding recipient.

The research project deals with comprehensive small farm manure runoff and milking wastewater management and is being administered by Dr. Steven Safferman, an associate professor at Michigan State University. Year two of the project focuses on monitoring and documenting the performance of the treatment systems.

Background

According to the research proposal, dairy farmers, particularly those with small herds less than 200 cows, face challenges managing storm water runoff and milking parlor wash water. Often large storage lagoons and manure storage structures are not available on smaller farms to collect parlor wastewater or storm runoff, and engineered treatment systems are not generally economically feasible.

Whether or not these options are available, the discharge of impacted water to surface and ground may result in health and environmental risks. Even on farms that do have a liquid manure storage system, diverting milk parlor wastewater to manure storage lagoons occupies approximately 20 to 50 percent of the lagoon



The AQUA wetland biofilter.

volume, increases hauling costs and dilutes manure nutrient value, negatively impacting nutrient balancing.

Through two separate technologies, researchers are aiming to determine the effectiveness and efficiency of small farm manure runoff and milking parlor wastewater management practices. The information gained during the project will also be valuable to larger farms as it can be able to be easily scaled up.

Vegetative Filter Strips

A vegetative filter strip was installed earlier this year following a USDA Michigan NRCS Wastewater Treatment Strip Practice Standard. The filter strips were installed at the MSU Dairy Farm and on a small MMPA member farm and are currently being monitored.

MMPA's Applied Research Funding Resolution

At the March 2009 MMPA State Annual Meeting, delegates approved the following resolution that allows for funding of the research project on this page.

C-26. Applied Research Funding

In 2007, MMPA delegates initiated an applied research fund in an amount equal to \$.01/cwt. on MMPA members' September milk production. We fully understand that applied research is important to the advancement of the dairy industry, and traditional research funding sources have become limited. We support the continuation of funding for the applied research fund in the amount equal to \$.01/cwt. produced by MMPA members for the month of September. This fund is to be managed by the MMPA board of directors or delegated committee.

We also encourage MMPA to work with other cooperatives and dairy industry groups to get all milk in the state participating in a similar manner.

Wetland Biofilter

An "AQUA" wetland biofilter is a three-cell system with discharge into a leach field. The design allows for surface water application to the wetland in summer and subsurface in winter. Several of these systems have been installed on dairies in Canada, and performance data on a Canadian dairy being studied show good potential. The AQUA treatment portion of the project is being conducted on an MMPA member farm and received cost share funding from AQUA Treatment Technologies.

Researchers plan to publish their findings in late 2010.