

## NEWS RELEASE

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COOPERATIVE EXTENSION SERVICE  
UNIVERSITY OF WISCONSIN-EXTENSION**

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### **What is the Manitowoc County UW-Discovery Farms Project Area?**

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I am sure that many readers of the Lakeshore Chronicle have read about a project known as the Manitowoc County UW-Discovery Farms Project Area (DFPA). At the same time, I am sure that thousands of readers are not exactly sure what this program entails.

The Discovery Farms Program is designed to “discover” what is occurring in our rural agricultural and non-agricultural areas. In short, we hope to discover sources of water pollution, (primarily surface water) and, then, figure out ways to reduce that pollution potential.

The local project is a very ambitious one. It will start this summer and run through at least 2009. Planning for this project started in December of 2003 and is on-going. The owners of two farms in southern Manitowoc County have graciously agreed to participate in the Manitowoc County UW-DFPA program. Those farms are Soaring Eagle Dairy, owned and operated by Jim and Sandie Fitzgerald and Kelly and Brian Goehring (Jim and Sandie’s other daughters, Julie and Stacy are actively involved in the operation.); and Saxon Homestead Farm, owned and operated by Karl and Liz Klessig, Gerry and Elise Heimerl, and Robert and Kathleen Klessig. These farm owners are to be commended for volunteering to “discover” what is happening on their farms, relative to surface water run-off and tile line discharge. Please note that tile lines are located in most fields in northeast Wisconsin. They are located a few feet below the soil surface and are designed to drain the water from the soil so that farmers can plow, cultivate, plant, and harvest their crops. Without functioning tile lines, many of the fields in Manitowoc County would be unavailable for profitable farming, especially in a wet year like this one.

So, how will this “discovery” be accomplished?

Although the entire project is very complicated, I will attempt to summarize how it will work.

First of all, water collection devices will be installed in water channels to continuously collect water samples. A structure called a flume (please see picture) is used to measure the flow of water passing through it. The flume structure ensures that all of the water coming from the water channel has to pass through it. This allows the researchers to calculate the amount of water in gallons.

Secondly, water samples are taken at various times depending upon the length of the storm, total volume of water passing through the flume, etc. Each collection station contains 24 one-liter bottles. The sample bottles are contained within a small refrigerator so that after collection, the samples are cooled to the appropriate temperature. This helps ensure that the constituents in the water sample remain unchanged.

After a rain storm or other run-off event, the sample bottles are collected and sent to the University of Wisconsin Stevens Point for analysis. The following parameters will be measured in water samples collected from Soaring Eagle Dairy and Saxon Homestead Farm.

- suspended solids
- total solids
- suspended sediment
- total phosphorus
- total dissolved phosphorus
- dissolved reactive phosphorus (ortho-p)
- dissolved ammonia
- dissolved nitrate + nitrite
- total Kjeldahl nitrogen
- total Kjeldahl nitrogen – dissolved
- fecal coliform bacteria
- chloride
- conductivity
- pH

Other parameters may be analyzed if the Manitowoc County Discovery Farms Advisory Committee feels that is necessary.

Depending upon the results of the initial phase of the project, the existing Best Management Practices (BMPs) on each farm will be evaluated. A BMP is a conservation practice designed to reduce water pollution. Examples include buffer strips along streams, grassed waterways, tree/shrub establishment and well decommissioning (abandonment) to name a few.

Please note that the initial phase of water sampling and analysis may take up to two years. Based on the research results from the approximately two-year initial phase, and based on the evaluation of existing BMPs, the UW-Discovery Farms' staff, with input from local residents, will design research trials to evaluate other cropping practices and BMPs. This phase of the research project will take an additional three to five years to complete.

The results of the second phase of the UW-Discovery Farms Project will be shared with the general public, farmers, agri-business consultants and service providers, governmental agencies, and policy makers.

For more information about this project, feel free to contact me at 683-4168 or email me at [scottgunderson@co.manitowoc.wi.us](mailto:scottgunderson@co.manitowoc.wi.us).



## Water Collection

Water collection devices, like the one above, will be installed at both Discovery Farm locations in southern Manitowoc County. This structure, known as a flume, is designed to measure the flow of water passing through it. In addition to the flume, equipment will be installed to collect representative water samples, which will then be analyzed for approximately 15 environmental parameters.

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### **Discovery Farms Advisory Committee to Meet**

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The Manitowoc County UW-Discovery Farms Advisory Committee will conduct a regular meeting on Monday, July 12<sup>th</sup> at 1:00 p.m. The meeting will be held at the Manitowoc County Office Complex.

Agenda items will include:

- update on fund raising efforts
- update on grant applications
- update on water collection and monitoring equipment
- communication with stakeholders
- review the proposed Mission Statement
- Review list of terms and acronyms
- Media Day update
- Municipal Officials Event educational booth
- Other appropriate business

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