

Pursuing Water Quality Together: Manitowoc County Discovery Farms Project Area
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Here in Wisconsin, we are America's Dairyland. Dairy contributes more than \$ 20.6 billion to the state economy and employs 160,000 people each year. Dairy farming is the backbone of agriculture in Manitowoc County, WI. In 2004, Manitowoc County dairies produced 862 million lbs. of milk from 44,000 cows in 351 herds, ranking them 5th in state milk production and 25th in the USA.

Significant Wisconsin land use is devoted to agricultural crop and livestock production. By their very existence, farming operations are superimposed upon a living and functioning landscape. All farms need water, use water, and have an impact on water that cycles through their land. Water runoff from agricultural operations does have the potential to introduce extra sediment and nutrients into surface waterways. Thus, all farms have an obligation to diligently manage agricultural operations for clean water.

Agriculture, along with expanding urban centers, and non-farm rural residents compete for land use. They often find themselves side by side as neighbors. Modern dairy is big, impressive and very visible in rural neighborhoods. Residents within urbanizing counties and townships often take issue with agricultural land use, farms with large animal numbers, manure – odor – dust, and ultimately soil, water, and air quality stewardship they believe agriculture ought to manage better.

Born of Fire & Controversy

Tourism in Manitowoc County contributes \$137 million to the local economy and generates 3,300 full time jobs. At the same time many local Lake Michigan beaches close at times each summer due to unsafe fecal coliform and E. coli bacteria levels. Similarly, periodic water runoff events have resulted in freshly applied livestock manure moving into streams and killing fish. Finally, the Manitowoc County shores of Lake Michigan have developed aggressive Cladophora algae populations. Cladophora proliferation is linked to high phosphorus levels, which in part are attributed back to agriculture.

In response to concern that agriculture needs to pay better attention to soil, water and air quality, Centerville Citizens for Air, River, and Environmental Solutions (Centerville CARES) formed in 2003 to address water pollution in Lake Michigan, promote conscientious land use and responsible agriculture in northeast Wisconsin, and find solutions to complex environmental problems.

Manitowoc County citizen groups have called local agriculture to task over concern for natural resource degradation. They are well organized and use highly visible methods involving community gatherings, governmental forums, political lobbying, and legal actions. After a time of much fire and controversy between the community and agriculture, the two groups ultimately agreed that a more constructive conversation was needed to begin listening to, speaking with, and understanding each other.

In 2003, Manitowoc County officials indicated local interest to develop a special UW-Discovery Farms project. The Manitowoc County project was initiated as a proactive and unique collaboration of citizens with agricultural, conservation, and environmental interests. The project features a diverse local advisory committee organization and seeks input from environmental, production agriculture and rural non-ag resident groups. To date, along with regular program funding, 40 local businesses have contributed \$ 52,400 to help fund their Manitowoc Area Discovery Farms Project.

UW-Discovery Farms Program

The University of Wisconsin – Discovery Farms Program works with commercial farms, conducting on-farm research to better understand environmental challenges associated with production agriculture. The program takes a real-world approach to find effective and economical solutions to minimize non-point source sediment and nutrient delivery attributed to agriculture; and conducts associated training and education.

Two Manitowoc County dairies volunteered to site a 5-7 year University of Wisconsin research project, monitoring effects of different agricultural best management practices on water quality. Utilizing the expertise of the US Geological Survey, surface water runoff and tile line water is continuously sampled and analyzed for nutrients and sediment on both farms. Both dairies are representative of the dairy industry in Manitowoc County. They are family farms, located within a couple miles of Lake Michigan, and have systematically grown in cow numbers and acreage through the generations.

Participating Farms

Soaring Eagle Dairy is a partnership between Jim and Sandie Fitzgerald and their three daughters; Kelly and Brian Goehring, Julie Maurer and Stacy Fitzgerald, Newton, WI.

The Fitzgeralds remodeled their traditional facility into a 700 cow dairy freestall operation in 1997 and plan to expand to 900 cows soon. Along with 6 full-time family members, Soaring Eagle Dairy employs 11 full-time and 3 part-time people. Alfalfa and corn are grown on 1100 acres each year on this farm.

The Soaring Eagle Dairy mission is to operate an efficient and profitable business producing high quality dairy products “from our cows to your table.” The farm management style places value in dealing with people, livestock and the environment with high integrity and ethics.

Saxon Homestead Farm was established in 1850; the farm is currently owned and operated by Karl and Liz Klessig, Robert and Kathleen Block-Klessig, Gerald and Elise Klessig-Heimerl and their families, Cleveland, WI.

Saxon Homestead Farm manages 450 Holstein cross-bred cows, 400 young stock, and 200 feeder steers. Their livestock graze 600 acres of permanent pastures. All the cows are bred to seasonally calve during the spring each year. Along with pastureland, they

grow alfalfa and corn silage on 300 additional acres. The focus of Saxon Homestead's farming system is to encourage biological sustainability, animal comfort, and land stewardship.

Why They Participate

In Manitowoc County, farmers own and manage 68% of the land. Both participating farm families agree, "We count it a privilege to be part of a study to understand the impacts of our industry on our land. We believe in agricultural management practices developed from science. The dairy industry is important to our family; so is providing a healthy environment for our children and grandchildren. We hope to discover what is happening on our farm, relative to surface water run-off and tile line discharge. We want to approach agricultural use of natural resources within our business and join with the community in a "Hands Across the Water" mentality instead of feuding like Hatfields and McCoys."

Hands Across The Waters

Agricultural producers are part of the local community. As a community, we share common goals: clean water and air, environmental stewardship, high quality affordable food, and a strong & thriving economy. Agricultural producers are working with their community to better understand how their operations are superimposed on top of a living and functioning landscape. They are learning what it takes to implement workable agricultural management systems that maintain high natural resource integrity and quality.

The whole neighborhood benefits when conscientious efforts are made to maintain clean water. Through the UW-Discovery Farms Program, agriculture has actively partnered with industry peers, the university, state agencies, environmental groups and local neighborhoods to measure the real impact of agriculture upon water quality through on-farm research and implement necessary environmental management practices.

Through this cooperative effort, the Manitowoc County Discovery Farms Project has helped build community trust through personal relationships, and transparent openness about the on-farm research conducted and subsequent findings.

Working together, the neighborhood is beginning to trust that their interest in lakes, water quality and environmental management on lands surrounding streams and lakes is proactively shared by dairy farmers and interested citizen groups in Manitowoc County.

More information about this project can be found at:

<http://www.discoveryfarms.org/special/manitowoc>

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