



Petersen Dairy Farm

Appleton, Wis.

Winner: Outstanding Dairy Farm Sustainability

Petersens Form Bond With Urban Neighbors Through Compost

Petersen Dairy Farm, overseen by brothers Mark and Steve with their father, Lawrence, has been in the family since 1934. Today, it is home to 50 Holstein dairy cows and 60 head of young stock, producing more than 31,000 pounds of milk annually.

The city of Appleton and its suburbs have grown significantly in recent years, prompting the Petersens to re-evaluate some aspects of their farming operation. Most notably, public image, water quality and manure odors needed to be addressed.

With the desire to show Appleton, Wis., that cows can be good neighbors, sustainability and environmental responsibility have taken center stage at Petersen Dairy Farm. Their herd has been bedded exclusively with recycled, shredded newspaper since 1988, manure from dairy has been composted since 1995 and new methods of tilling have reduced soil loss while improving the cropping operation.

Best Practices

1 Manure Management System

Summary

The Petersens recognized the potential benefits of composting and began the process in 1995. Before investing in their own equipment, the Petersens partnered with the Oneida Nation (a local Native American tribe) to rent their compost turner. They found that composting helped to dramatically reduce odors, while keeping tractors, manure spreaders and mud off local roads (which results in less road wear and improved safety). Nutrients are stabilized and manure is ultimately turned into a value-added product for neighbors, with more than 99 percent of the dairy's manure being used by local gardeners and homeowners.

Key benefits

Located on the urban fringe, the Petersens are able to market their compost as home garden fertilizer, compost tea and raised bed mix. This has become a significant revenue generator and opportunity for the family to connect with the community. In addition, the Petersens have found savings in composting. The cost to produce compost is about half of the cost to apply manure to the fields. As part of their commitment to the composting process, the Petersens engaged the University of Wisconsin Extension to conduct research on their compost site rotation. This ongoing analysis helps minimize the potential ground water impacts.



2

Zone Till Conversion

Summary

In part to address noise, dust and road travel issues, the Petersens implemented a zone tilling method. This has helped to reduce soil waste, while improving the overall cropping operation. The Petersens hoped to reduce fuel usage and labor needed to produce dairy feed without impacting profitability. The family leveraged the expertise of a crop consultant to modify their planting and transition to no till and zone till. The Petersens also work with the local Fox Valley Technical College to research the impact of zone till methods on corn.

Key benefits

The elimination of tillage has saved the Petersens impressive amounts of time and money with no negative impact on profitability. Prior to the conversion, the Petersens were losing eight times the amount of soil to erosion as they are now. Soil compaction has essentially been eliminated, and soil temperatures have been consistently five to seven degrees warmer in the strips. This is valuable for seed germination and allows for earlier planting.

Throughout the years, the Petersens have taken a closer look at the way their business affects the environment and community. Practices such as composting and zone tilling have improved profitability, while protecting the environment and respecting the lifestyle of Appleton-area neighbors.

The composting project has helped turn a potential challenge into a positive. Manure is now used to improve relationships in the community. Composting also has allowed the family to reduce their environmental impact while gaining an additional income source. The Petersens hope to serve as a model for other farms on the urban fringe by exemplifying the ability to coexist with neighbors while also creating mutually beneficial relationships.



The Sustainability Awards are part of the U.S. Dairy Sustainability Commitment, an industrywide effort to measure and improve the economic, environmental and social sustainability of the dairy industry. The award program recognizes dairy farms, businesses and collaborative partnerships for their contributions to healthy people, healthy products and a healthy planet and showcases that sustainability makes good business sense. An independent panel of judges evaluate all nominations based on the program's or project's results as measured by triple-bottom-line success – economic, environmental and social. For more information, please visit USDairy.com/Sustainability/Awards.