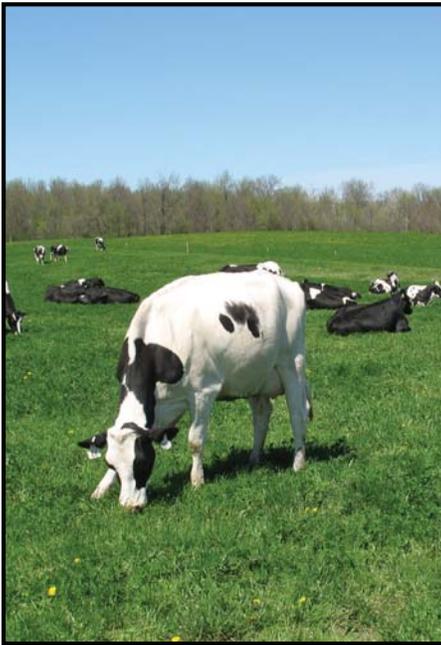


# Essential Dairy

## Dave and Heather Lettow Farm



### Why Prescribed Grazing?

In a prescribed grazing system (also referred to as “rotational grazing”), the farmer fences the farm into multiple paddocks and moves (rotates) the herd of animals frequently to fresh pasture, leaving the recently grazed paddock to grow back to optimal forage condition before being grazed again. As a perennial cover, pasture encourages groundwater recharge, improves soil quality, and prevents sediment and nutrient losses. By converting to prescribed grazing, a farmer can lower capital costs and reduce veterinary needs. In times of rising energy and materials costs coupled with scarce credit, managed grazing offers a business model option for beginning or transitioning farming businesses.

### Great Lakes Conservation Initiative

#### *Conservation Beyond Boundaries*

The Great Lakes Restoration Initiative (GLRI) is an initiative to improve water quality, wildlife habitat and help protect and restore priority watersheds in the region. NRCS is working with its conservation partners in an eight-state area to combat invasive species, protect watersheds and shorelines from non-point source pollution, and restore wetlands and other habitat areas.

NRCS in Wisconsin is focused conservation program funds in the Lower Fox, Manitowoc-Sheboygan and the Milwaukee River watersheds which border the shores of Lake Michigan. Through financial and technical assistance, NRCS helps private landowners with conservation planning using variety of conservation practices, such as cover crops, conservation crop rotations, filter strips, prescribed grazing and wetlands restoration. The Essential Dairy is located in the Milwaukee River Watershed in Southeastern Wisconsin.

### Essential Dairy

When Dave and Heather Lettow took over Dave’s grandparent’s farming operation in 2007, it wasn’t much different than other family dairies in the area. Fields were moldboard plowed, manure was spread on 20 acres surrounding the farm buildings and cattle were kept in a barnyard of bare soil.

Indeed, Dave’s grandparents had worked to protect their land. In the late 1980’s they participated in the Milwaukee River Priority Watershed project to install a barnyard runoff system that trapped solid manure on the lot while allowing water to divert to a vegetated filtering system. Cost share from the Wisconsin Department of Natural Resources (WDNR) and technical assistance from the Washington County Land and Water Conservation Division (LWCD) helped them implement these practices.

However Dave and Heather saw room for additional improvement. They first decided to better manage their nutrients. Dave took a class through the Washington County LWCD to learn how to properly write a nutrient management plan. He learned how to collect his own soil samples, interpret the current soil nutrient level to calculate crop need, and plan the appropriate location and amounts to spread manure. This allowed him to save money on commercial fertilizer while maximizing his crop yields.



*“We’ve made a lot of changes and improvements to this farm since we took it over just four years ago,” Dave said, “We never would have been able to do it without the assistance of the NRCS.”*

## Going Grazing

In the nutrient management class Dave discovered the Environmental Quality Incentives Program (EQIP) offered by the Natural Resources Conservation Service (NRCS). He learned that cost share assistance was available to treat some of the resource concerns that he had inherited. Dave had been looking into the benefits of grazing his cattle and decided to apply for EQIP for a prescribed grazing system. This would allow him to pasture his cows rather than concentrating them at the barnyard, thus reducing his costs in delivering feed and managing manure.

Dave and Heather's EQIP application was approved to provide them assistance to convert 46 acres of cropland to pasture. Through this practice, they worked with the grazing specialist from Town & Country Resource Conservation and Development (RC&D) to develop a grazing plan. This plan helped Dave and Heather to calculate the optimal balance of forage supply and livestock demand, and to decide what species mix to seed in the fields. The plan also designed a layout of their paddocks, fences, water pipeline, and watering facilities. All of these practices were cost shared by NRCS.

## Keep the Clean Water Clean

As farming operations change, new resource concerns sometimes arise. Dave and Heather constructed a roof over a portion of their barnyard to provide shelter for their animals, but this allowed roof water to fall into the middle of the barnyard. Also, changes to the neighbor's operation directed more water into the area. These issues increased the concern of more manure leaving the lot.

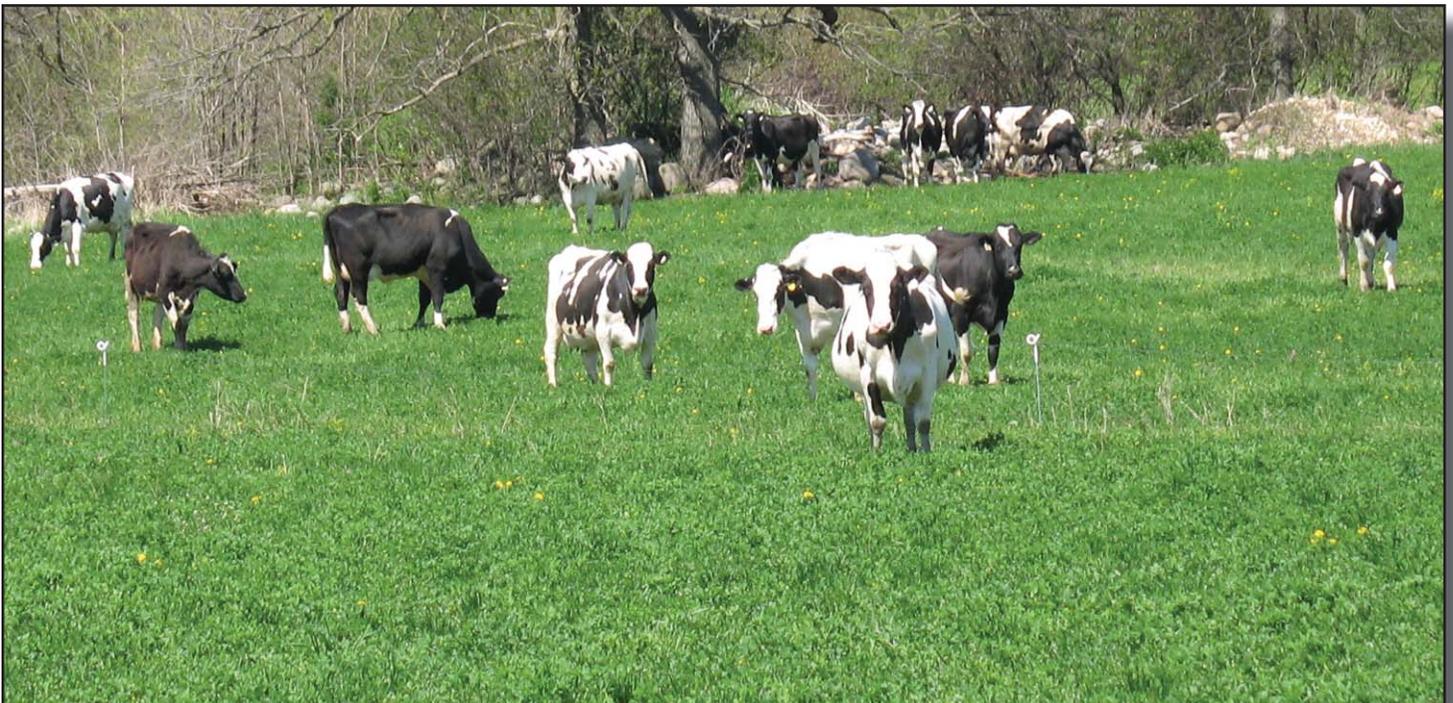
The Lettows applied for EQIP again in 2011 to treat these and other resource concerns. Through their new contract they will receive cost share assistance to install gutters on the barnyard roof and a concrete area to divert the water flowing onto the lot. These practices will keep the clean water off of the lot which will help the existing barnyard runoff system function correctly.

Also under the new EQIP contract, Dave and Heather will expand their grazing operation by adding another 16 acres to their dry cow and young stock pastures. To further reduce the loss of nutrients from their fields Dave and Heather are incorporating 130 acres of cover crops into their crop rotation. The cover crops are seeded in the fall to scavenge excess nutrients left by the previously harvested crop, and to protect the soil from erosion over winter. In spring, the cover crops will be a source of quality forage for the Lettow's cattle.

## Conservation Stewards

In addition to their EQIP contracts, Dave and Heather applied in 2010 for the NRCS Conservation Stewardship Program (CSP). They were awarded a CSP contract and now receive annual payments to maintain their current level of conservation for five years. They enhanced their CSP contract by recycling 100% of their on farm lubricants and adding structures to their watering troughs to allow wildlife to escape.

In the long term, Dave and Heather desire to expand their pastures so they can raise all of their replacement cows on their own to save on the cost of having them custom raised. Also, they would like to improve their cattle lanes to make it easier for their cows to get around the grazing system.



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