

Breaking From the Herd with Rotational Grazing

Raymond Meismer, Washburn, Illinois

Incorporating Rotational Grazing in the Crop Rotation

Coordinator: Raymond Meismer

Location: Washburn, Illinois

SARE Grant: \$5,000

Grant Year: 2000

Project Number: FNC00-309

Raymond Meismer used a SARE grant to install a new water system and convert his acres of natural forage into rotational grazing. He divided his land into 15 paddocks and rotated cattle every three or four days.

Cows clearly have a herd mentality. When cattle used to wander down to a spring to drink on

Raymond Meismer's land, they did so as a herd. But problems soon arose because the weaker, more cautious calves could not get enough water. Just when the calves managed to squeeze past the other cows and began to drink, the lead cows were ready to go. So they left as a herd, and the calves went thirsty.

But that wasn't the only problem, Meismer says. By the time the calves started drinking, the other cattle had walked, urinated, and defecated in the water. Calves will not drink if the water is too dirty. And to make a bad situation even worse, he says, the herd's traffic caused streambank erosion.

Back in 2000, Meismer owned roughly 20 head of cattle grazing on 20 to 30 acres of natural forage on his 300-acre farm. But the water problems inspired Meismer to obtain a SARE grant to install a new water system and to convert his acres of natural forage into managed pasture—also known as rotational grazing.

"I became interested in rotational grazing because I thought I could possibly increase my stocking rate on pasture, while



"...I could possibly increase my stocking rate on pasture, while minimizing the impact on the Illinois River Watershed..."

minimizing the impact on the Illinois River Watershed," says Meismer, whose land is located in Washburn, Illinois, 30 miles northeast of Peoria.

With natural forage, or permanent pasture, grass is grazed down so low that the vigor of the grass is hurt severely and may not grow back. Oftentimes, he says, you wind up with weeds instead.

With rotational grazing, however, you divide your pasture into small units, or paddocks. Then you rotate your cattle from paddock to paddock, allowing the grass to re-grow in the other paddocks.

Meismer says he divided his land into 15 paddocks, about 2½ to 3 acres each. He rotated the cattle every three to four days, giving each paddock about four weeks to re-grow. Depending on the time of year, the cattle would graze the grass down to about 2 to 3 inches. He separated the paddocks using an electric fence with a step-in steel post.

Meismer also received help from University of Illinois Extension and the Natural Resources Conservation Service in researching the right watering system. They

discovered a fairly low-tech system that has been around for over a century—a hydraulic ram pump.

The force of falling water operates the pump, creating enough hydraulic pressure to force the water through a garden hose up the hill and into the paddock. The water is then stored in a 500-gallon storage tank, which has a drinking tank attached to it.

"The system works well," says Meismer. "It allows several cattle to drink from the drinking tank and have enough to satisfy their thirst without draining the storage tank." It also solves the calf problem, since the cattle have no problem drinking at the tank alone or in small groups.

The SARE grant funded the watering system and some of the temporary fences for the paddock development.

Meismer also converted some of his cropland to grazing land. He says portions of this cropland was marginal land, most of it rolling or surrounded by trees, and he figured he could make more money with the additional cattle than through corn. This turned out to be true. Meismer was able to add 17 cattle with his new rotation on 72.1 acres. His net return for the calf production was \$65.05 per acre, compared to \$55.73 per acre for corn and \$59.70 per acre for soybeans.

But that was at 2000 prices.

In 2007, the price of corn increased to \$3.80 per bushel. So he wound up selling the 17 cows that he had added and converted much of the land back into cropland—all corn.

However, he still rotationally grazes his pastures and uses the watering system but on slightly less land. Also, Meismer plans on burying a waterline in the future so he will not have to move his water hose around constantly.

"If I could move the cattle without having to move the water system, it would make things a lot easier," he says.

By Jason Peterson