

Conversion from Conventional to Intensive Rotational Grazing Dairy

Final Report for FNC00-302

Project Type: Farmer/Rancher

Funds awarded in 2000: \$5,000.00

Projected End Date: 12/31/2001

Matching Non-Federal Funds: \$14,892.00

Region: North Central

State: Wisconsin

Project Coordinator:

[Edward Pattison](#)

Project Information

Summary:

PROJECT BACKGROUND

Pattison Home Farm, located in Canton Township, Buffalo County, has been in operation for over one hundred years. Our livestock in the past has consisted of dairy, beef and hogs. My father, brother and I ran all three areas of the farm. In light of prices paid for agricultural commodities, we have quit raising our 300 to 400 market hogs per year. My brother has taken a job off the farm and he has taken over the small beef cow operation.

Currently my dairy herd consists of 40 Guernsey, Jerseys, and Holsteins. We have 160 acres of land, a mix of swamp, stream, and farmland. Our crops are corn, oats, and hay. The Dairy is my lively hood and with a reduction of the labor available, I needed to make some changes to make the dairy operation function. Grazing was a clear choice, and intensive rotational grazing appeared to be most profitable and environmentally friendly.

PROJECT DESCRIPTION AND RESULTS

Our area of central Wisconsin, predominantly a dairy producing region, has been hard hit by America's rural crisis. Vertical integration and its associated pressures gave virtually evicted many local small family farmers from their way of life. The options have seemingly been reduced to two; either get big or get out. Many have chosen to sell the farm. My family and I hope to achieve and exemplify another alternative, to establish a working system of intensive rotational grazing of our dairy herd.

We started by building a new fence and repairing our existing line fence. The new perimeter fence along County Road A and Zittle Road was professionally installed. The new fence consists of three strands of 175,000 PSI High Tensile Electric Fence. I use a low impedance energizer, which I recommend to everyone.

The new pasture was seeded with a cover crop of oats and under seeded with a mix of Red Clover, Perennial Rye Grass, smaller amounts of Blue Grass, and Smooth Brume. The existing pasture was inter-seeded with Red Clover.

Large pastures were then divided into small paddocks of 3 to 8 acres. Cattle were rotated through each paddock with light portable poly wire, moved every twelve hour at approximately 1.5 acres per move. Providing clean fresh pasture every twelve hours, which increased consumption and spread waste more evenly.

Lanes and cattle walkways were by biggest physical barrier to overcome. Cattle lanes were built with portable poly fence designed to avoid wet location and they were built with a lot of flexibility to make changes as conditions change from springtime to summer.

Mary Anderson, USDA, NRCS, RC&D of Whitehall, Wisconsin, is our area grazing specialist. She has made several trips to our farm to help me make good choices on technical problems such as seed selection, paddock size, nutrient value, weed control, and stream bank protection. I have enclosed my managed grazing plan at the end of my report, which was compiled by Mary. Mary was also a guest speaker at the pasture walk I hosted in August 2001. I will write more about the pasture walk later in my report. She provided helpful information during the pasture walk to educate the attending farmers with financial and environmental benefits of Intensive Rotational Grazing.

Tiffany Creek runs within 75 yards of our cow yard and run off is a big concern when cattle are confined on concrete and a small dry/mud exercise lot. So Carl Duley of the Buffalo County Extension Office helped me with this problem. He made several trips to our farm to make recommendations on stream bank protection, tree removal and also maintenance of our stream crossing. Carl gave me advice on my thirty-year-old culvert, spillway and cow lane.

I cut and removed large and small Box Elder trees for the stream banks and I also removed dead falls from the streambed. By removing these trees I allowed more sunshine so the grass growth could protect the lazy meandering Tiffany Creek. My dairy cows were given limited access to the stream bank for grazing but they were not allowed to drink from the creek due to erosion concerns.

I attended several pasture walk field days around the area to educate myself on the choices I had to make concerning my grazing project. I gathered many good ideas from other farmers that have made the switch to intensive rotational grazing on their farms.

Grazing has been a great benefit to our dairy operation. Some of these benefits include decreased labor and decreased usage of my aging field work equipment. In 2001, I fed fifty cows on thirty acres of pasture for a full six months.

The implementation of intensive rotational grazing by converting cropland into permanent pasture has greatly reduced the amount of mechanically harvested forage, storage of forage, feeding cost and labor, and removal and application of manure. I only did one mechanical clipping of grass stubble this year to eliminate stubble.

Rotational grazing has been a great time saver. Paddocks can be moved in just a few minutes per day. Forage harvesting along with its time and expense has been greatly reduced. This allows me more time on other farm projects and also allows me more time with my wife and three children.

The intensive rotational grazing project has been an overall success, economically, environmentally and socially. I have seen very good grass and legume production. The cows eagerly wait to enter the new pasture areas during the moving of the portable fence. The milk production was very good and the components of milk, fat content etc, compared to other years of milking.

The cropland that was converted to pasture has greatly reduced erosion from wind

and water because the soil is never left exposed. The water quality has also improved due to the fact that the pasture requires no pesticides and no added nitrogen or commercial fertilizers.

The health of the cattle has improved overall. They are clean with good udder and milk quality. Overall physical strength of the cows has improved because the cattle receive a lot more exercise compared with the old conventional set up where the cattle spend their day on concrete or a filthy exercise lot. Milk production has maintained or improved in part because of good grass production but also because overall health and fitness has improved due to exercise improved muscle tone and a clean living environment.

However, I did experience two major problems with intensive rotational grazing. First, pink eye which may have been a result of letting the pasture grow too tall, causing eye irritation. The second problem was lameness caused by acidosis, a result of lush pasture and low fiber content. Dry hay supplement should eliminate this problem next year.

OUTREACH

A pasture walk was held on our farm on August 29th, 2001. The public was invited through newspaper and a post card notice was sent out everyone in the coulee region grazers association. About 15 people attended, Mary Anderson of Whitehall Wisconsin opened the pasture walk with a discussion on rotational grazing and what we have accomplished. I also gave a presentation about the permanent fencing system, and later we all went for a walk. During the pasture walk we discussed forage type and condition. We also conversed on our repaired area and the culvert stream crossing and its approach and spillway maintenance.

Research

Participation Summary

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or SARE.



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