



Wisconsin's Grazing Success

Grazing dairy farms show profit and promise

What is managed grazing?

Over the past ten years, many farmers have implemented managed grazing on their livestock and dairy farms. Farmers using managed grazing move animals to fresh pasture on a regular basis and manage the pastures to maximize the quality and quantity of feed. Farmers divide pastures by fencing them into smaller units called 'paddocks.' After grazing, the paddocks are rested so the plants can recover and regrow before being regrazed. Animals on a managed grazing farm derive a major portion of their feed from pasture during the grazing season.

In contrast, many other farms use continuous grazing, where animals graze the same pastures over a long time. While animals benefit from fresh air and exercise, these pastures do not provide much quality feed.

Who uses managed grazing?

In Wisconsin, a growing percentage of dairy farmers are using managed grazing. Survey research from the **Program on Agricultural Technology Studies (PATS)** at UW-Madison shows that in 1993, 7 percent of Wisconsin dairy farmers used managed grazing; in 1995, 14 percent; in 1999, 22 percent; and in 2003, 23 percent. These farmers vary in their approach to grazing: one-third of the respondents using managed grazing in 1999 moved their milking cows to fresh pasture once a day or more; another third moved cows every two to six days; and the remaining third moved cows weekly.

Beginning farmers are much more likely to use managed grazing than other dairy farmers. A 1996 PATS survey showed that nearly 30 percent of new dairy farmers used managed grazing, almost twice the 14-15 percent rate for dairy farmers as a whole at that time. Additionally, nearly 46 percent of new farmers indicated that they planned to use improved pastures to obtain feed for their milking herd in the future.

Why use managed grazing?

A managed grazing system is usually less expensive to set up than a confinement dairy. Since the cows harvest a portion of their feed and spread their own manure while grazing, less equipment is needed for feed and manure handling compared to confinement farms. Cows tend to live longer on managed grazing farms, meaning less money is spent on replacement animals. There is also more income potential from selling heifers.

Typically, farms using managed grazing produce less milk per cow than confinement farms. However, a series of economic studies in Wisconsin and elsewhere show that, for many dairy farmers, the savings they realize from using managed grazing more than offsets the loss in milk revenues due to lower production. **These studies show that grazing farms are economically competitive with confinement operations.**

How were the studies carried out?

Tom Kriegl of the **UW-Madison Center for Dairy Profitability** has been analyzing financial performance of graziers with the Wisconsin Grazing Dairy Profitability Analysis every year since 1995. In the first year, data from 19 farms were summarized; that number rose to 31 in 2002. In 2000, a USDA Initiative for Future Agriculture and Food Systems grant expanded that research to a regional study covering finances on managed grazing dairy farms in the Great Lakes states, plus Iowa and Missouri. Data from 92 grazing farms were summarized in that study in 2000; 126 in 2001; and 103 in 2002. Farmers participating in these financial surveys must earn 85% or more of their gross income from milk sales or 90% from dairy livestock sales plus



milk sales. To be considered a grazer, a farmer must harvest over 30% of seasonal forage needs by grazing and must provide fresh pasture at least once every three days.

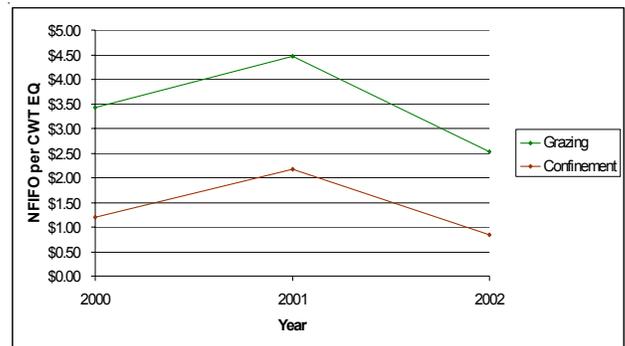
Standardization of data handling and analysis procedures relied heavily on the Farm Financial Standards Guidelines (revised December, 1997). The computer program Agricultural Financial Advisor (AgFA) was used to analyze the data.

What were the key findings?

Kriegel reports several key points in his analysis:

- In Wisconsin and New York, graziers were more profitable per cow and per hundredweight equivalent (CWT EQ*) than their confinement counterparts in these states. In addition, Wisconsin graziers were more profitable per cow and per CWT EQ than graziers in most other states providing data.
- Farms using managed grazing consistently showed higher net farm incomes from operations (NFIFO**) per CWT EQ and lower costs per CWT EQ than traditional and large modern confinement farms in Wisconsin.
- Farmers who switch from confinement dairy farming to managed grazing need not suffer financial hardship during the transition.

Financial performance of two dairy types in Wisconsin, 2000-2002



Source: Dairy Grazing Farms Financial Summary: Regional/Multi-State Interpretation of Small Farm Data, April 2004.

And comparisons between grazing farms show that:

- The average most profitable grazing farm in Wisconsin produced slightly more milk per cow and had slightly lower costs per cow and higher income per cow than the average least profitable grazing farm. The average most profitable grazing group had a better handle on most categories of costs, did a better job of generating income, and had lower interest, depreciation, and labor and management expenses.
- The average grazing dairy farm with under 100 cows was more profitable per cow and per CWT EQ than those with over 100 cows. Lower labor costs account for much of this advantage.
- Graziers are making a variety of strategies work for them. Some graziers use a seasonal calving strategy, some are certified organic, and some use milking parlors. No single approach seems to be the right or only way to manage a grazing dairy farm.

*CWT EQ (hundredweight equivalent): an indexing procedure which focuses on the primary product that is sold and standardizes farms in terms of milk price and many other variables for analysis purposes. The use of an equivalent unit is the most meaningful measure when calculating the cost of producing milk, because dairy farm businesses have multiple sources of income. The measure is calculated by summing the income from the sale of all products produced on the dairy farm and dividing by the national average milk price to calculate the equivalent number of hundredweights sold. The equivalent hundredweights are then divided into the expenses to calculate the cost per CWT EQ. (See *Cost of Production Versus Cost of Production*, Dr. Gary Frank, UW Center for Dairy Profitability, 1997.)

**NFIFO (net farm income from operations): the income that is left over after all costs except opportunity costs have been accounted for. NFIFO represents returns to unpaid labor and unpaid management, and equity (owned) capital invested in the business. NFIFO is the amount of income a family could 'consume' from business earnings in a given year without reducing business net worth.

This summary is an excerpt from a report titled "Pastures of plenty: Financial performance of Wisconsin grazing dairy farms," funded by a USDA-CSREES grant to CIAS and by the Wisconsin Milk Marketing Board. Visit the UW-Madison Center for Integrated Agricultural Systems website at www.cias.wisc.edu for more information on grazing research. Visit the Center for Dairy Profitability website at www.cdp.wisc.edu and the Program on Agricultural Technology Studies website at www.pats.wisc.edu for more information on the studies and publications mentioned here.