



Fact Sheet #5 : Grazing vs. Confinement Farms

Regional Multi-State Interpretation of Small Farm Financial Data from the Fourth Year Report on 2003 Great Lakes Grazing Network Grazing Dairy Data April 2005

Overview

The data and conclusions of this paper are derived from the report with the above title from a USDA Initiative for Future Agricultural and Food Systems (IFAFS) Grant project #00-52101-9708. Some strengths of this work include standardized data handling and analysis procedures, combined actual farm data of ten states and one province to provide financial benchmarks to help farm families and their communities be successful and sustainable. The main report is also based upon work supported by Smith Lever funds from the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture. The full report is available at <http://cdp.wisc.edu/Great%20Lakes.htm>.

Participating grazing dairy farms must typically obtain 85% or more of gross income from milk sales, or 90% of gross income from dairy livestock sales plus milk sales, harvest over 30% of grazing season forage by grazing and must provide fresh pasture at least once every three days.

Management Intensive Rotational Grazing (MIRG) has become a more common dairy system in the northern U. S. This analysis of actual farm financial data from 102 graziers in 2003, 103 in 2002, 126 in 2001, and 92 in 2000, most from the Great Lakes region provides some insight into the economics of grazing as a dairy system in the northern U.S.:

- There is a range of profitability amongst graziers. The most profitable half had an advantage of \$2.48 in Net Farm Income From Operations per Hundredweight Equivalent (NFIFO/CWT EQ) over the least profitable half. This result is similar to the three previous years, but the difference between the higher and lower profit herds was greater in the years with lower milk prices. For more information, see Fact Sheet #2 of this series.
- The average grazing herd with less than 100 cows had a higher NFIFO per cow and per CWT EQ than the average grazing herd with more than 100 cows. The \$0.24 advantage in NFIFO/CWT EQ for the smaller herds was a result of a \$0.74 per CWT EQ advantage in the cost of paid labor. This result is similar to the three previous years. For more information, see Fact Sheet #3 of this series.
- Careful examination of the data suggests that achieving a given level of NFIFO per cow or per CWT EQ is more difficult in a seasonal (stops milking at least one day each calendar year) system. The average seasonal herd had a smaller range of financial performance within a year, but experienced more variability of financial performance from year to year. Seasonal herds had a slight advantage in NFIFO/Cow and per CWT EQ in 2003 and a large advantage in 2001. The non-seasonal herds had nearly a two-to-one advantage in NFIFO/Cow and per CWT EQ in 2000 and 2002. For more information, see Fact Sheet #4 of this series.
- The graziers in the study were economically competitive with confinement herds in the states that had comparable data from both groups in four consecutive years.
- While breed of cattle is a minor factor affecting profitability, the Holstein herds in the data had better financial performance in three years of comparisons. For more information, see Fact Sheet #6 of this series.

The study also confirms that accounting methodology and financial standards are important both in the accuracy and in the standardization of comparison values across large geographic areas that involve different combinations of production assets and management skills. In comparing the results of this study with other data, it will help to understand the measures used here but not in all places in the country.

Comparing Grazing Herds to Confinement Herds

Most of the available data indicates that the NFIFO per Cow and NFIFO per CWT EQ decreases as herd size increases. That is only one of the many reasons to be very careful when comparing the average financial performance of graziers to the average financial performance of confinement herds. While progress has been made in standardizing data handling procedures and analysis for graziers in some states, this level of uniformity does not yet exist with all confinement data. Consequently, the comments made about the relative financial performance of graziers versus confinement herds focus on data from New York and Wisconsin. These states have collected their confinement data under conditions similar to those used to collect grazier data.

The graziers in both states in all four years had an advantage over their confinement counterparts in NFIFO/CWT EQ and in the allocated and non-basic cost categories. In all years, the Wisconsin graziers also had a NFIFO/CWT EQ advantage in the basic cost category. The New York graziers had an advantage in the basic cost category in two years and a very slight disadvantage in the other two years. Together, this suggests that the graziers in this study spread their NFIFO/CWT EQ advantage among many factors.

2003 is a bit different from the other three years in that Wisconsin graziers had their smallest advantage of the four years over their confinement counterparts. The opposite was true for New York.

A higher percent of total labor used on the larger confinement farms is hired. To better understand the effects of this information on financial performance, it is useful to examine the impact of labor compensation on NFIFO/Cow and NFIFO/CWT EQ. In all years the grazier advantage would decrease if all labor were free.

Because of rounding, some small mathematical differences might be found in the summary tables below.

*See Chapters IX and X of the full report for more information about CWT EQ and cost categories. <http://cpd.wisc.edu/>

Comparing the Financial Performance of Graziers to Confinement Dairy Herds in Two	Wisconsin		New York	
	Grazier	Confinement	Grazier	Confinement
Number of Herds	43	652	28	173
Number of Cows per Herd	61	123	108	348
Average Lbs. Milk per Cow	15,796	21,346	15,840	22,610
Average Lbs. Milk per Herd	961,726	2,625,558	1,709,627	7,868,387
Group Average Mailbox Milk Price	\$14.01	\$12.92	\$14.57	\$13.07
U.S. All Milk Price (used to calculate CWT EQ)*	\$12.50	\$12.50	\$12.50	\$12.50
Average Basic Cost per CWT EQ	\$7.50	\$7.70**	\$7.70**	\$8.60
Allocated Cost per CWT EQ	\$10.12	\$10.86	\$10.29	\$12.11
Non-Basic Cost per CWT EQ (Allocated Minus Basic)	\$2.62	\$3.16	\$2.59	\$3.51
NFIFO per Cow (without deducting any labor compensation)	\$588	\$892	\$800	\$672
NFIFO per CWT EQ (without deducting any labor compensation)	\$2.78	\$3.12	\$3.42	\$2.44
NFIFO per Farm	\$30,655	\$57,481	\$55,934	\$37,560
NFIFO per Cow	\$504	\$468	\$518	\$108

** By coincidence, the basic cost of both groups are equal.

Tom Kriegl from the U.W. Center for Dairy Profitability is the lead author of this report. You may contact him at (608) 263-2685, via e-mail at tskriegl@wisc.edu, by writing the UW Center for Dairy Profitability, 277 Animal Science Bldg., 1675 Observatory Drive, Madison, WI 53706, or by visiting <http://cdp.wisc.edu>. The following researchers are leading the project in their respective states: Jim Endress (Illinois), Larry Tranel and Robert Tigner (Iowa), Ed Heckman (Indiana), Bill Bivens, Phil Taylor, and Chris Wolf (Michigan), Margot Rudstrom (Minnesota), Tony Rickard (Missouri) Jim Grace (New York), Thomas Noyes and Clif Little (Ohio), Jack Kyle and John Molenhuis (Ontario, Canada), J. Craig Williams (Pennsylvania), and Tom Kriegl and Gary Frank (Wisconsin). Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture.