



FACT SHEET # 3: COMPARING HERDS BY SIZE, LESS THAN 100 COWS VS. MORE THAN 100 COWS

Regional Multi-State Interpretation of Small Farm Financial Data from the Second Year Report on 2001 Great Lakes Grazing Network Grazing Dairy Data May 2003

Summary

The data and conclusions of this paper are derived from the report titled Regional Multi-State Interpretation of Small Farm Financial Data, the second year report of a USDA Integrated Food and Agricultural Systems (IFAS) grant project #00-52501-9708. 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 first enterprise analyzed in this project is dairy grazing. To be considered a dairy farm for the study, 85% or more of gross income must be from milk sales, or 90% of gross income must typically be from dairy livestock sales plus milk sales. Additionally, to be considered a grazer for the study, one must harvest over 30 % of grazing season forage needs 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 126 graziers in 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. A comparison of the most profitable half with the least profitable half shows that the top herds had an advantage of \$2.81 in Net Farm Income From Operations per Hundred Weight Equivalent (NFIFO/CWT EQ). This result is similar to 2000. 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 smaller herds have a \$0.54 per CWT EQ advantage in the cost of paid labor, which accounts for more than the \$0.44 NFIFO/CWT EQ overall advantage that the smaller herds have.
- The average grazer in the 2001 data that used the seasonal calving strategy (stops milking at least one day each year), had more desirable financial performance than the average non-seasonal herd in 2001, whether NFIFO/cow, NFIFO/CWT EQ or total NFIFO is used as the yardstick. **This is a sharp contrast** to the 2000 comparison and with multiple years of other calving strategy comparisons. The average grazer in the 2000 data that used the seasonal calving strategy, had substantially less desirable financial performance than the average non-seasonal herd, whether NFIFO/cow, NFIFO/CWT EQ or total NFIFO is used as the yardstick. 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. For more information on the comparisons between grazing and confinement dairy farming see Fact Sheet # 5 in the 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.

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Comparing Herds by Size: Less Than 100 Cows vs. More than 100 Cows

The average "large" herd in 2001 has more than three times as many cows, producing about ten percent less milk per cow, and is less profitable on a per cow and a per CWT EQ basis. The average "large" farm does provide many more total dollars of NFIFO per farm. In the basic cost category, the larger herds have a higher cost per CWT EQ for purchased feed, rent, repairs, other farm expenses and depreciation of purchased livestock.

The smaller herds have a combined basic cost per CWT EQ that is \$0.31 higher than the larger herds. However, the smaller herds have a \$0.79 per CWT EQ advantage in the four non-basic cost categories that are added to the basic cost category to create the allocated cost category. More specifically, the smaller herds spent \$0.13 per CWT EQ less for interest, \$0.70 per CWT EQ less for paid labor and management, but \$0.04 more per CWT EQ for depreciation than the large herds.

This accounts for the \$0.48 per CWT EQ overall advantage that the smaller herds have in NFIFO per CWT EQ.

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

Comparing Herds by Size: Less than 100 vs. More Than 100			
	Less than 100 Cows	More than 100 Cows	2001 Average
Number of Herds	96	30	126
Number of Cows per Herd	57	173	84
Average Lbs. Milk per Cow	16,145	14,671	15,426
Average Lbs. Milk per Herd	917,335	2,538,523	1,303,333
Average Basic Cost per CWT EQ	\$8.72	\$8.41	\$8.60
Allocated Cost per CWT EQ	\$11.45	\$11.93	\$11.68
Allocated Minus Basic Cost per CWT EQ (Non-Basic Costs)	\$2.73	\$3.52	\$3.08
NFIFO per Cow (without deducting any labor compensation)	869	\$864	866
NFIFO per CWT EQ (without deducting any labor compensation)	\$4.26	\$4.51	\$4.39
NFIFO per Farm	\$40,057	\$99,837	\$54,283
NFIFO per Cow	\$705	\$577	\$643
NFIFO per CWT EQ	\$3.49	\$3.01	\$3.26

The larger herds cost of paid labor which is \$0.70 per CWT EQ higher, provides the smaller herds much of their advantage in NFIFO per CWT EQ. If all labor expenses were omitted, the larger herd size would have a higher NFIFO per CWT EQ as shown above.

The year 2000 comparison of the "large" versus "small" herds was similar to the 2001 comparison, but the smaller herds had a slightly larger NFIFO/CWT EQ advantage in 2001.

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