GREAT LAKES GRAZING NETWORK

Linking Farmers with Knowledge and Resources

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

Regional Multi-State Interpretation of Small Farm Financial Data from the Third Year Report on 2002 Great Lakes Grazing Network Grazing Dairy Data May 2004

Summary

The data and conclusions of this paper are derived from the report with the above title from a USDA Initiative for Future Agriculture and Food Systems (IFAFS) grant project #00-52501-9708. Strengths of this work include standardized data handling and analysis procedures and 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.

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 grazier 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 103 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 $2.44 in Net Farm Income From Operations per Hundred Weight Equivalent (NFIFO/CWT EQ). This result is similar to 2001 and 2000, but the difference between the higher and lower profit farms 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 100 cows or more. The smaller herds have a $0.76 per CWT EQ advantage in the cost of paid labor, which accounts for more than the $1.07 NFIFO/CWT EQ overall advantage that the smaller herds have. This result is similar to 2001 and 2000.

- Non-seasonal herds had a higher NFIFO per cow and per CWT EQ than seasonal (stops milking at least one day each calendar year) herds in two out of three years. 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 system. The seasonal group had a smaller range of financial performance within a year but experienced more variability of financial performance from year to year. 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 three consecutive years. This result is similar to 2001 and 2000. 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.

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

The average "large" herd in 2002 had about three times as many cows, produced about ten percent less milk per cow, and was less profitable on a per cow and a per CWT EQ basis than the average "small" herd. The average "large" farm does provide more total dollars of NFIFO per farm. For every basic cost item, the larger herds spent less per CWT EQ than the smaller herds except for purchased feed, rent, fertilizer and lime, repairs, other livestock expenses, changes in accounts payable and depreciation of purchased livestock.

Overall, the smaller herds have a $0.23 advantage in basic cost per CWT EQ and another $0.84 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 $0.06 per CWT EQ less for interest, $0.76 per CWT EQ less for paid labor and management, and $0.02 less per CWT EQ for depreciation than the large herds.

This accounts for the $1.07 ($2.23-$1.16) 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. 100 Cows or More	Less than 100 Cows	More than 100 Cows	2002 Average
Number of Herds	75	28	103
Number of Cows per Herd	57	164	86
Average Lbs. Milk per Cow	16,418	14,318	15,332
Average Lbs. Milk per Herd	936,493	2,341,760	1,318,507
Group Average Mailbox Milk Price	$13.44	$14.04	$13.73
U.S. All Milk Price (used in calculating CWT EQ)	$12.15	$12.15	$12.15
Average Basic Cost per CWT EQ	$7.63	$7.86	$7.74
Allocated Cost per CWT EQ	$9.92	$10.99	$10.45
Allocated Minus Basic Cost per CWT EQ (Non-Basic Costs)	$2.29	$3.13	$2.71
NFIFO per Cow (without deducting any labor compensation)	683	560	620
NFIFO per CWT EQ (without deducting any labor compensation)	$2.96	$2.65	$2.80
NFIFO per Farm	$29,465	$40,095	$32,354
NFIFO per Cow	**$516**	**$245**	**$376**
NFIFO per CWT EQ	**$2.23**	**$1.16**	**$1.70**

The larger herds' cost of paid labor is $0.76 per CWT EQ higher than that of smaller herds. This provides the smaller herds much but not all of their advantage in NFIFO per CWT EQ. If all labor expenses were omitted, the smaller herd size would still have a higher NFIFO per CWT EQ, as shown above.

<u>The "large" versus "small" herd comparison was similar in all three years, but the smaller herds had a slightly larger NFIFO per CWT EQ advantage in 2002 and 2000 than in 2001.</u>

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