



## **FACT SHEET #5: GRAZING VS. CONFINEMENT FARMS—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 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 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 2002, 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. For more information, see Fact Sheet #3 of this series.
- 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.

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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Most of the available data indicates that the NFIFO per Cow and NFIFO per CWT EQ decrease 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 grazer data.

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.

As shown in the table below, the Wisconsin graziers' NFIFO/CWT EQ advantage in 2002 would narrow from \$1.68 (\$2.53 – \$0.85) to \$0.78 (\$3.14 – \$2.36) if all (paid and unpaid) labor compensation were omitted. In addition, the NFIFO/Cow advantage would nearly disappear, narrowing from \$294 (\$524 – \$230) to \$10 (\$651 – \$641) in 2002 if all labor compensation were omitted.

The New York graziers NFIFO/CWT EQ advantage in 2002 would narrow from \$1.15 (\$1.56-\$0.41) to \$0.52 (\$2.86-\$2.34) if all compensation were omitted. The NFIFO/Cow advantage narrows from \$255 (\$374-\$119) to \$114 (\$786-\$672) when labor compensation is omitted.

**The graziers in both states in all three years had a NFIFO/CWT EQ advantage over their confinement counterparts 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 a NFIFO/CWT EQ advantage in the basic cost category in one year 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. As is the case with most of the other comparisons, the results from 2002 are more similar to the results from 2000 than those of 2001.**

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

Comparing The Financial Performance Of Graziers To Confinement Dairy Herds In Two Participating States In 2002	Wisconsin		New York	
	Grazier	Confinement	Grazier	Confinement
Number of Herds	31	581	34	194
Number of Cows per Herd	61	117	102	323
Average Pounds of Milk per Cow	15,644	20,858	16,353	22,591
Average Pounds of Milk per Herd	954,085	2,440,386	1,675,724	7,305,774
Group Average Mailbox Milk Price	\$12.55	\$12.66	\$14.27	\$12.93
U.S. All Milk Price (used in calculating CWT EQ)	\$12.15	\$12.15	\$12.15	\$12.15
Average Basic Cost per Cwt EQ	\$7.23	\$7.91	\$7.84	\$8.22
Allocated Cost per Cwt EQ	\$9.62	\$11.30	\$9.68	\$11.74
Allocated Cost Minus Basic Cost per CWT EQ (Non-Basic Costs)	\$2.39	\$3.39	\$1.84	\$3.52
NFIFO Per Cow (Without Deducting Labor Compensation)	\$651	\$641	\$786	\$672
NFIFO Per CWT EQ (Without Deducting Labor Compensation)	\$3.14	\$2.36	\$2.86	\$2.34
NFIFO per Farm	\$31,928	\$26,963	\$38,316	\$38,284
<b>NFIFO per Cow</b>	<b>\$524</b>	<b>\$230</b>	<b>\$374</b>	<b>\$119</b>
<b>NFIFO per CWT EQ</b>	<b>\$2.53</b>	<b>\$0.85</b>	<b>\$1.56</b>	<b>\$0.41</b>

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