



## FACT SHEET #5: GRAZING VS. CONFINEMENT FARMS

### 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. For more information see Fact Sheet #3 of this series.
- 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.

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 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 table 5-1 below, the Wisconsin graziers NFIFO/CWT EQ would narrow from \$2.31 (4.48 – 2.17) to \$1.27 (5.02 – 3.75) if all (paid and unpaid) labor compensation were omitted. In addition, the NFIFO/cow advantage would nearly disappear, narrowing from \$322 (842 – 520) to \$36 (933 – 897) in 2001 if all labor compensation were omitted.

If all labor compensation were omitted, the New York graziers would lose their advantage in NFIFO/CWT EQ (from a plus \$0.63 to a minus \$0.11) and in NFIFO/cow (from a positive \$41 to a negative \$353) in 2001. In addition, if labor costs were omitted, the New York confinement herds would have a higher NFIFO/cow than the Wisconsin confinement and grazing herds.

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

Comparing The Financial Performance Of Graziers To Confinement Dairy Herds In Two Participating States In 2001	Wisconsin		New York	
	Grazier	Confinement	Grazier	Confinement
Number of Herds	27	627	53	192
Number of Cows Per Herds	62	106	94	340
Average Pounds of Milk Per Cow	15,644	20,454	16,150	22,191
Average Pounds of Milk Per Herd	974,346	2,192,928	1,513,178	6,983,700
Average Basic Cost Per Cwt EQ	7.68	9.03	9.06	9.01
Allocated Cost per Cwt EQ	10.46	12.77	12.26	12.89
Allocated Cost Minus Basic Cost Per CWT EQ (Non-Basic Costs)	2.78	3.74	3.20	3.88
NFIFO Per Cow (Without Deducting Labor Compensation)	933	897	810	1163
NFIFO Per CWT EQ (Without Deducting Labor Compensation)	5.02	3.75	3.96	4.07
NFIFO Per Farm	52,446	54,579	51,428	172,785
<b>NFIFO Per Cow</b>	<b>842</b>	<b>520</b>	<b>549</b>	<b>508</b>
<b>NFIFO Per CWT EQ</b>	<b>4.48</b>	<b>2.17</b>	<b>2.68</b>	<b>2.05</b>

NFIFO (without deducting any labor compensation) is not a common measure. It is used in this project because some comparisons are made between farms that rely mainly on hired labor and farms that rely entirely on unpaid labor. In such cases, this uncommon measure provides additional insight to the comparisons.

In summary, graziers' disadvantage in income and production per farm and per cow was more than offset by their control of operating expense, investment and debt. The average grazier, in both states, were more profitable than their confinement counterparts in 2001 and 2000 in spite of lower production per cow.

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](mailto: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), Ralph Booker (Indiana), Bill Bivens and Sherrill Nott (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.