



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

### Regional Multi-State Interpretation of Small Farm Financial Data from the First Year Report on 2000 Great Lakes Grazing Network Grazing Dairy Data July 2002

#### Overview

The data and conclusions of this paper are derived from the report titled Regional Multi-State Interpretation of Small Farm Financial Data, the first 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 ninety-two 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 \$2.41 of Net Farm Income From Operations per Hundred Weight Equivalent (NFIFO/CWT EQ). This is examined specifically in 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. See Fact Sheet #3 in this series for more on this point.
- The average grazer in the study who is fully seasonal (stops milking at least one day each year), has a less desirable financial performance than the average non-seasonal herd, whether NFIFO/cow, NFIFO/CWT EQ or total NFIFO is used as the yardstick. Despite having access to data from many states, only seven seasonal herds' data were part of the analysis. Fact Sheet #4 in the series investigates seasonal milking at greater length.
- The graziers in the study were economically competitive with confinement herds in the states that had comparable data from both groups. Fact Sheet # 5 in the series focuses on the comparisons between grazing and confinement dairy farming.

The study also confirms that accounting methodology and financial standards are important both in the accuracy and the standardization of comparison values across large geographic areas involving different combinations of production assets and management skills. Any comparison between the measures in this report and data based on the current market value (CMV) of assets will be misleading. Here, the measures of profitability are calculated in this report using the historic cost asset valuation method (HC) to provide a better measure of profit levels generated by operating the farm business.

#### Comparing Graziers to Confinement Farms

Most of the available data indicates that the NFIFO per Cow and NFIFO per CWT EQ decreases as herd size increases. However, that is only one of the reasons that one must be very careful when comparing the average financial performance of graziers from several states to the average confinement herd from a single state and vice versa. While much progress has been made in standardizing data handling procedures and analysis for graziers in several states, that level of uniformity does not yet exist with confinement data across all of the same states. Consequently, this report focuses on the relative financial performance of graziers and confinement herds in New York and Wisconsin, states in which confinement and grazer data is collected under similar conditions.

Most previous comparisons between graziers and confinement dairy farmers show graziers having a higher NFIFO per Cow and NFIFO per CWT EQ, despite selling fewer pounds of milk per cow. That has been true for six consecutive years of such comparisons in Wisconsin and in similar comparisons in New York for several years. The graziers also have a higher NFIFO per Cow and NFIFO per CWT EQ than their confinement counterparts in both states in 2000, as shown in the table below.

A higher percent of total labor used on the larger confinement farms is hired, and the larger confinement farms are also more likely to compensate dependents for tax management purposes. To better understand these differences, it is useful to examine the impact of labor compensation on NFIFO/cow and NFIFO/CWT EQ. As shown in the following table, the graziers' NFIFO/CWT EQ advantage narrows when all (paid and unpaid) labor compensation is omitted. The NFIFO/cow advantage does disappear for the New York Graziers but only narrows for the Wisconsin graziers.

### Comparing The Financial Performance of Graziers to Confinement Dairy Herds in Two Participating States

Comparing The Financial Performance of Graziers to Confinement Dairy Herds in Two Participating States	Wisconsin		New York	
	Grazier	Confinement	Grazier	Confinement
Number of Herds	16	605	65	239
Number of Cows Per Herds	65	109	93	294
Average Pounds of Milk Per Cow	16,404	20,202	17,107	22,167
Average Pounds of Milk Per Herd	1,066,764	2,192,928	1,585,980	6,517,830
Average Basic Cost Per Cwt EQ	6.60	7.75	8.12	8.06
Allocated Cost per Cwt EQ	9.19	11.13	10.95	11.68
Allocated Cost Minus Basic Cost Per CWT EQ	2.59	3.38	2.83	3.62
<b>NFIFO Per Cow</b>	<b>617</b>	<b>296</b>	<b>315</b>	<b>181</b>
<b>NFIFO Per CWT EQ</b>	<b>3.44</b>	<b>1.20</b>	<b>1.38</b>	<b>0.65</b>
NFIFO Per Farm	40,120	32,199	29,227	50,897
NFIFO Per CWT EQ (Without Deducting Labor Compensation)	3.50	2.60	2.34	1.81
NFIFO Per Cow **(Without Deducting Labor Compensation)	689	640	534	663

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 was more profitable than their confinement counterparts in 2000 in spite of—but probably not because of—lower production per cow.

\*\*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 measurement provides additional insight to the assessment.

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