



**GREAT LAKES GRAZING NETWORK**  
Linking Farmers with Knowledge and Resources

## **FACT SHEET #4: COMPARING SEASONAL CALVING WITH NON-SEASONAL HERDS— 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.
- 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.

## FACT SHEET #4: COMPARING SEASONAL CALVING WITH NON-SEASONAL HERDS

Page 2

### **Defining Calving Strategies**

In this study, a herd is considered to be employing the seasonal calving/milking system if they stop milking at least one day or more each calendar year. They may be referred to as simply "seasonal" hereafter. Any calving strategies not meeting the seasonal definition is referred to as non-seasonal in this analysis.

### **Explanation**

The average grazer in the 2002 data that used the non-seasonal calving strategy had more desirable financial performance than the average seasonal herd, whether NFIFO/Cow, NFIFO/CWT EQ or total NFIFO is used as the yardstick. This is a sharp contrast to the 2001 comparison but in agreement with 2000 results and with multiple years of other calving/milking strategy comparisons.

**Small sample size and turnover appears to be a major factor in explaining the year-to-year differences.** Unfortunately for research purposes, less than 15 percent of the herds in the three years of summaries practice seasonal calving/milking. Of the 13 seasonal herds included in the 2002 summary, 10 were included in 2001 and two were included in 2000. Of all the seasonal herds summarized in 2001, twice as many were new to the summary than were repeats from 2000.

**The 2001 milk price pattern** was unusual and much more favorable for spring seasonal herds than for non-seasonal herds.

In a few words, the financial performance of the average seasonal grazer in the 2001 data is likely to be a better indicator of what can be achieved under favorable conditions by experienced and highly capable managers committed to the seasonal system.

Furthermore, the financial performance of the average seasonal grazer in the 2001 data probably does not represent the kind of financial performance that less experienced or less capable managers could expect to achieve quickly and consistently while working toward the establishment of a seasonal system.

This comparison of seasonal and non-seasonal calving systems illustrates the challenge in reaching confident conclusions from small groups of data and it reminds us of the danger in reaching confident conclusions from testimonials. It demonstrates the importance of using standardized and complete financial documentation to compare different farms and systems. It also begs for a careful ongoing examination to understand what is happening and what factors can result in profitability shifts.

Comparing Seasonal with Non-Seasonal Calving/Milking Herds	Seasonal			Non-Seasonal		
	2000	2001	2002	2000	2001	2002
Number of Herds	7	18	13	85	101	90
Number of Cows per Herd	145	85	141	85	84	78
Average Lbs. Milk per Cow	11,667	12,270	11,044	17,560	15,695	16,454
Average Lbs. Milk per Herd	1,691,715	1,044,970	1,560,561	1,496,401	1,325,900	1,283,544
Group Average Mailbox Milk Price	\$13.70	\$17.50	\$13.05	\$13.06	\$16.14	\$13.85
U.S. All Milk Price (used to calculate CWTEQ)	\$12.33	\$14.94	\$12.15	\$12.33	\$14.94	\$12.15
Average Basic Cost per CWT EQ	\$6.73	\$7.67	\$8.02	\$7.96	\$8.69	\$7.69
Allocated Cost per CWT EQ	\$11.46	\$10.28	\$10.83	\$10.58	\$11.90	\$10.38
Allocated Minus Basic Cost per CWT EQ (Non-Basic Costs)	\$4.73	\$2.61	\$2.81	\$2.62	\$3.21	\$2.69
NFIFO per Cow (without deducting any labor compensation)	\$404	\$1,101	\$381	\$602	\$825	\$683
NFIFO per CWT EQ (without deducting any labor compensation)	\$2.20	\$5.46	\$2.36	\$2.64	\$4.21	\$2.89
NFIFO per Farm	\$23,202	\$73,322	\$30,061	\$33,913	\$50,413	\$32,686
<b>NFIFO per Cow</b>	<b>\$160</b>	<b>\$861</b>	<b>\$213</b>	<b>\$398</b>	<b>\$597</b>	<b>\$419</b>
<b>NFIFO per CWT EQ</b>	<b>\$0.87</b>	<b>\$4.66</b>	<b>\$1.32</b>	<b>\$1.75</b>	<b>\$3.04</b>	<b>\$1.77</b>

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