



## Fact Sheet #6 : PREVIEW OF FINANCIAL PERFORMANCE OF GRAZIERS BY BREED

# Regional Multi-State Interpretation of Small Farm Financial Data from the Fourth Year Report on 2003 Great Lakes Grazing Network Grazing Dairy Data April 2005

### Overview

The data and conclusions of this paper are derived from the report with the above title from a USDA Initiative for Future Agricultural and Food Systems (IFAFS) Grant project #00-52101-9708. 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 full report is available at <http://cdp.wisc.edu/Great%20Lakes.htm>.

Participating grazing dairy farms must typically obtain 85% or more of gross income from milk sales, or 90% of gross income from dairy livestock sales plus milk sales, harvest over 30% of grazing season forage 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 102 graziers in 2003, 103 in 2002, 126 in 2001, and 92 in 2000, most from 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. The most profitable half had an advantage of \$2.48 in Net Farm Income From Operations per Hundredweight Equivalent (NFIFO/CWT EQ) over the least profitable half. This result is similar to the three previous years, but the difference between the higher and lower profit herds 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 more than 100 cows. The \$0.24 advantage in NFIFO/CWT EQ for the smaller herds was a result of a \$0.74 per CWT EQ advantage in the cost of paid labor. This result is similar to the three previous years. For more information, see Fact Sheet #3 of this series.
- 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 (stops milking at least one day each calendar year) system. The average seasonal herd had a smaller range of financial performance within a year, but experienced more variability of financial performance from year to year. Seasonal herds had a slight advantage in NFIFO/Cow and per CWT EQ in 2003 and a large advantage in 2001. The non-seasonal herds had nearly a two-to-one advantage in NFIFO/Cow and per CWT EQ in 2000 and 2002. 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 in four consecutive years. For more information, see Fact Sheet #5 in the series.
- While breed of cattle is a minor factor affecting profitability, the Holstein herds in the data had better financial performance in three years of comparisons.

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.

### Preview of Financial Performance of Graziers by Breed of Cattle

Dairy herds in the GLGN database represent a number of different breeds of dairy cows as well as crossbred cattle. **Many graziers are keenly interested in breeding the ideal grazing dairy cow.** Therefore, data in this project have been sorted by breed in an attempt to measure the impact of breed on profitability.

The participating herds are categorized as being one of the seven major dairy breeds (Ayrshire, Brown Swiss, Guernsey, Jersey, Holstein (black and white), Holstein (red and white), and Milking Shorthorn) if the herd is at least 85% of one of the above breeds. No red and white Holstein herds are in the data. *The terms breed or purebred as used here doesn't require registration. They are used to designate an animal that most experienced observers would recognize as a member of a specific breed and is not known to have crossbreeding in recent ancestry.*

Since not all cows or herds are homogeneous, additional categories and their definitions are necessary.

Other implies a herd that is at least 85% of a "pure breed" other than the seven major dairy breeds listed as a choice above. Examples are Dutch Belted and Normande.

Crossbred implies a herd consisting mainly of cows that are the genetic result of a deliberately planned crossbreeding program.

Mixed implies a combination of several "pure" breeds or a combination of one or more purebreds plus crossbreeds such that no single homogeneous group represents the "predominant breed in the herd." The definition of a herd of mixed breeds is so broad that no two "mixed" herds are alike. The mixed breed category is a "catch all" category. If a herd doesn't fit into one of the more precisely defined breed categories, it is included in the mixed breed category.

There are not enough herds from most breeds to make any meaningful comparisons.

In 2003, 61 of the herds were identified as Holstein. Of the 41 that were not identified as Holstein, 28 were mixed, 8 were Jersey, 6 were crossbred, and one was Brown Swiss.

In 2002, 63 of the herds were identified as Holstein. Of the 40 that were not identified as Holstein, 26 were mixed, 8 were Jersey, 3 were crossbred, with one each of Ayrshire, Brown Swiss, and Dutch Belted.

In 2001, 70 of the herds were identified as Holstein. Of the 54 herds that were not categorized as Holstein, 19 were mixed, 10 were Jersey, five were crossbred, three were Ayrshire, and one each of Brown Swiss and Dutch Belted.

Only one other pure breed was found as the predominant breed on 8 or more herds in the study in more than one year. That breed is Jersey and this number of observations is too small to use for confident conclusions. Also since half of the Jersey herds in 2003 and 2002 practiced seasonal calving, the Jersey herd performance may be influenced more by calving practice than by breed. Another section of this report discusses the financial performance of herds meeting the seasonal calving/milking definition.

With Holstein and non-Holstein being the two largest "breed" groups, the third largest number of observations is the mixed group with 28 observations in 2003, 26 in 2002 and 19 in 2001. The mixed group is the most Holstein-like subset of the non-Holstein group.

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A mixed herd could consist of up to 85% of one pure breed. In the data, none of the mixed herds comes that close to being in another category. Several of the mixed herds are between 50 and 84% Holstein. One herd was 75% Ayrshire. Other mixed herds do not have a breed that makes up as much as 50% of the total.

It is difficult to compare mixed or crossbred herds as a group with any other breed group, because no two crossbred or mixed herds are alike. **The best comparison that can be made with this group of data is to compare Holstein with non-Holstein herds for a couple of years before trying to propose conclusions.** Not even this comparison was made for 2000 because many herds in the 2000 data were not categorized as precisely as previously described. Yet, because the mixed group is sizable, it is shown in the table in the third year report but not in the fourth year report table illustrating 2003 data. While not shown in any tables, no other homogenous breed group had financial performance as desirable as the Holstein group. As explained before, combining crossbred herds doesn't result in a homogenous group. The average financial performance of the small number of crossbred herds comes closer than any other non-Holstein group in matching the Holstein group average financial performance.

In 2003, 2002, and 2001, the herds with 85% or more Holsteins had noticeably higher NFIFO/Cow and NFIFO/CWT EQ than the non-Holstein herds. The Holstein advantage was larger with the NFIFO/Cow measure than when measured by NFIFO/CWT EQ. This is contrary to a fairly common belief that the Holstein is a less profitable breed for grazing systems. Because a dairy farm is a very complex business with many variables, the differences in profit levels between the two groups cannot be entirely credited to the breed of cows. For example, while the years of grazing and farming experience for all of the graziers is not available in the data, it does appear that Holstein herds tend to also have the more experienced managers. The managers with more years of experience have had more time to increase equity and decrease debt. Such factors may be responsible for some of the difference in performance between the Holstein herds and those called non-Holstein.

Therefore the results don't allow us to say that one breed is more profitable than the others.

The NFIFO/Cow and NFIFO/CWT EQ are shown in the Table 6.1 for each the Holstein and non-Holstein groups on the other side of this page.

The Average Performance of Grazing Farms From Many States by Herd Breed-	Holstein			Non-Holstein		
	2001	2002	2003	2001	2002	2003
Number of Herds	70	63	61	54	40	41
Number of Cows per Herd	74**	74**	72	97	105	111
Average Lbs. Milk per Cow	16,817	17,277	17,187	14,093	13,165	13,649
Average Lbs. Milk per Herd	1,247,371	1,280,295	1,229,971	1,371,647	1,378,691	1,515,252
Group Average Mailbox Milk Price	\$16.17	\$13.92	\$13.73	\$16.54	\$13.46	\$15.19
U.S. All Milk Price (used in calculating CWT EQ)***	\$14.94	\$12.15	\$12.50	\$14.94	\$12.15	\$12.50
Average Basic Cost per CWT EQ	\$8.30	\$7.36	\$7.68	\$8.89	\$8.29	\$7.98
Allocated Cost per CWT EQ	\$11.25	\$10.10	\$10.34	\$12.18	\$10.96	\$10.44
Non-Basic Cost per CWT EQ (Allocated Minus Basic)	\$2.95	\$2.74	\$2.66	\$3.29	\$2.67	\$2.46
NFIFO per Cow*	\$982	\$792	\$767	\$758	\$428	\$578
NFIFO per CWT EQ*	\$4.69	\$3.18	\$3.24	\$4.05	\$2.25	\$2.90
NFIFO per Farm	\$57,199	\$37,812	\$36,823	\$50,201	\$13,759	\$45,560
<b>NFIFO per Cow</b>	<b>\$771</b>	<b>\$510</b>	<b>\$515</b>	<b>\$515</b>	<b>\$227</b>	<b>\$410</b>
<b>NFIFO per CWT EQ</b>	<b>\$3.69</b>	<b>\$2.05</b>	<b>\$2.16</b>	<b>\$2.76</b>	<b>\$1.19</b>	<b>\$2.06</b>
*labor compensation not deducted						
**By coincidence both herd sizes are equal						
***See Chapters IX and X of the full report for more information about CWT EQ and cost categories. <a href="http://cdp.wisc.edu/">http://cdp.wisc.edu/</a>						