GREAT LAKES GRAZING NETWORK
Linking Farmers with Knowledge and Resources

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

Regional Multi-State Interpretation of Small Farm Financial Data from the Sixth Year Report on 2005 Great Lakes Grazing Network Grazing Dairy Data October 2007

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/.

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 115 graziers in 2005, 101 in 2004 102 in 2003, 103 in 2002, 126 in 2001, and 92 in 2000 (more than 251 farms supplied at least one year of data), mainly 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 ratio between the most profitable half and the least profitable half's Net Farm Income from Operations (NFIFO) per cow and per Hundredweight Equivalent (CWT EQ) was greater in the lower profit years (usually with lower milk prices) than in the higher profit years. 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 smallest margin appeared in the 2003 data. For more information, see Fact Sheet #3 of this series.
- Non-seasonal herds had a large NFIFO per cow and per CWT EQ advantage in 2000 and 2002. The seasonal herds (stop milking at least one day each calendar year) had a large NFIFO per cow and per CWT EQ advantage in 2001 and 2004 and a very small advantage in 2003. In 2005, non-seasonal herds had a NFIFO/Cow advantage and slight NFIFO/CWT EQ disadvantage. **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. Less than 15 percent of the herds in the data were seasonal. 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 more information, see Fact Sheet #5 of the series.
- While breed of cattle is a minor factor affecting profitability, the Holstein herds in the data had better financial performance in NFIFO per cow in five of five years and NFIFO per CWT EQ in four of five years of comparisons with other breeds. For more information, see Fact Sheet #6 of this series.
- The ranking of major cost items is remarkably similar between grazing and confinement herds. For more information, see Fact Sheet #7 and #8, of this series.
- Relatively consistent differences in financial performance between states have appeared in all years. These differences must be considered when interpreting the data.

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 were 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 term purebred as used here doesn't require registration. It is 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 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 cross-breeding program.

Mixed implies a combination of several "pure" breeds or a combination of one or more purebreds plus cross-breeds 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 didn't fit into one of the more precisely defined breed categories, it was included in the mixed breed category.

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

In 2005, 62 of the herds were identified as Holstein. Of the 53 that were not identified as Holstein, 42 were mixed, 6 were Jersey, 4 were crossbred, and one was Brown Swiss.

In 2004, 61 of the herds were identified as Holstein. Of the 40 that were not identified as Holstein, 30 were mixed, 5 were Jersey, 4 were crossbred, and one was Brown Swiss.

In 2003, 61 of the herds were identified as Holstein. Of the 41 that were not identified as Holstein, 28 were mixed, 6 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 (other than Holstein) was found as the predominant breed in 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 conclu-

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sions. Also, since many the Jersey herds 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 was the mixed group with 42 observations in 2005, 29 in 2004, 28 in 2003, 26 in 2002 and 19 in 2001. The mixed group is the most Holstein-like subset of the non-Holstein group.

A mixed herd could consist of up to 85% of one pure breed. In the data, several of the mixed herds were between 50 and 84% Holstein. One herd was 75% Ayrshire. Most 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.** Not even this comparison was made for 2000 because many herds in the 2000 data were not categorized as precisely as previously described. The mixed group data was shown in the table in the third year report. While not shown in later reports, the relative performance of the mixed group was similar to the performance of the non-Holstein group.

In 2004, for the first time in four years, the non-Holstein herds had an advantage over the Holstein herds in NFIFO per CWT EQ. **In 2005, the Holstein advantage in NFIFO/CWT EQ was very slim.**

In all years, the herds with 85% or more Holsteins had noticeably higher NFIFO per cow than the non-Holstein herds. The Holstein advantage was larger with the NFIFO per cow measure than when measured by NFIFO per CWT EQ. This is contrary to a fairly common belief that 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 was not available in all of 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.

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

Performance Measures Selected from the Average Performance of Grazing Farms From Many States by Herd Breed	Holstein				
	2001	2002	2003	2004	2005
Number of Herds	70	63	61	61	62
Number of Cows per Herd	74**	74**	72	78	85
Average Lbs. Milk per Cow	16,817	17,277	17,187	17,523	18,299
Average Lbs. Milk per Herd	1,247,371	1,280,295	1,229,971	1,374,954	1,552,960
Group Average Mailbox Milk Price	$16.17	$13.92	$15.24	$17.42	$16.70
U.S. All Milk Price (used in calculating CWT EQ)*	$14.94	$12.15	$12.50	$16.10	$15.14
Average Basic Cost per CWT EQ	$8.30	$7.36	$7.68	$9.33	$9.08
Non-Basic Cost per CWT EQ	$2.95	$2.74	$2.66	$3.28	$3.14
Allocated Cost per CWT EQ (Basic + Non-Basic Cost)	$11.25	$10.10	$10.34	$12.61	$12.22
NFIFO per Cow (if all labor was unpaid)	$982	$792	$767	$1,043	$949
NFIFO per CWT EQ (if all labor was unpaid)	$4.69	$3.18	$3.24	$4.61	$4.03
NFIFO per Farm	$57,199	$37,812	$36,823	$61,954	$58,337
NFIFO per Cow	**$771**	**$510**	**$515**	**$790**	**$687**
NFIFO per CWT EQ	**$3.69**	**$2.05**	**$2.16**	**$3.49**	**$2.92**

Performance Measures Selected from the Average Performance of Grazing Farms From Many States by Herd Breed	Non-Holstein				
	2001	2002	2003	2004	2005
Number of Herds	54	40	41	40	53
Number of Cows per Herd	97	105	111	116	115
Average Lbs. Milk per Cow	14,093	13,165	13,649	13,760	14,406
Average Lbs. Milk per Herd	1,371,647	1,378,691	1,515,252	1,595,087	1,660,357
Group Average Mailbox Milk Price	$16.54	$13.46	$15.19	$18.02	$16.89
U.S. All Milk Price (used in calculating CWT EQ)*	$14.94	$12.15	$12.50	$16.10	$15.14
Average Basic Cost per CWT EQ	$8.89	$8.29	$7.98	$9.31	$9.17
Non-Basic Cost per CWT EQ	$3.29	$2.67	$2.46	$2.93	$3.06
Allocated Cost per CWT EQ (Basic + Non-Basic Cost)	$12.18	$10.96	$10.44	$12.24	$12.23
NFIFO per Cow (if all labor was unpaid)	$758	$428	$578	$918	$812
NFIFO per CWT EQ (if all labor was unpaid)	$4.05	$2.25	$2.90	$4.89	$4.06
NFIFO per Farm	$50,201	$13,759	$45,560	$84,014	$67,092
NFIFO per Cow	**$515**	**$227**	**$410**	**$725**	**$582**
NFIFO per CWT EQ	**$2.76**	**$1.19**	**$2.06**	**$3.86**	**$2.91**

*See Chapters IX and X of the full report for more information about CWT EQ and cost categories. http://cdp.wisc.edu
**By coincidence both herd sizes are equal