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

Overview
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 grazier 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 2000, 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 more than 100 cows. 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. 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 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.
Here are a few key terms used and more fully explained in the full report:

**Cost per Hundredweight Equivalent of Milk Sold (CWT EQ)** is an indexing procedure which focuses on the primary product that is sold and standardizes farms in terms of milk price and many other variables for analysis purposes. The Cost of Production calculated for any two farms using the CWT EQ method are directly comparable. The Cost of Production calculated for farms using the cost per product unit (hundredweight) sold method are not directly comparable.

A comprehensive evaluation of the cost of production of any business will examine several levels of cost. AgFA© is the name of the web-based, farm financial analysis and summarization computer program used in this study. The AgFA© Cost of Production report calculates basic, non-basic, allocated and total costs.

**Total Cost** is all cash and non-cash costs including the opportunity cost of unpaid labor, management and capital supplied by the owning family.

**Allocated Cost** equals total cost minus the opportunity cost of unpaid labor, management and capital supplied by the owning family. Allocated cost also equals total income minus NFIFO.

**Basic Costs** are all the cash and non-cash costs except the opportunity costs and interest, non-livestock depreciation, labor, and management. Basic cost is a useful measure for comparing one farm to another that differs by: the amount of paid versus unpaid labor; the amount of paid versus unpaid management; the amount of debt; the investment level; and/or the capital consumption claimed (depreciation).

**Non-Basic Costs** include interest, non-livestock depreciation, labor, and management. Allocated cost minus basic cost equals non-basic cost.

The grazing dairy farm families that provided usable data display an average financial performance level that many farm families would be satisfied with. This level of financial performance, along with some other characteristics of grazing systems, suggest that it may be a viable alternative for farm families who want to be financially successful, especially with a dairy farm that relies primarily on family labor.

The measures of profitability calculated in the detailed cost of production and farm earnings reports in the full report are calculated using the historic cost asset valuation method (HC) to provide a better measure of profit levels generated by operating the farm business. Any comparison between the measures in this report and data based on the Current Market Value (CMV) of assets will be misleading.

**What's Next**
The standardization of data handling and analysis procedures in this project relies heavily on the Farm Financial Standards Guidelines (revised December, 1997). This and AgFA© open the door to standarized multi-state analysis of other enterprises for which data can be collected. Additional data and enterprises are desired for the project.

Some data has been collected from organic dairy farms and from custom heifer raisers, as well as additional years of data from grazing dairy farms. The profitability of herds by breed is being examined.