

# Production Economics of Ohio Dairy Farms 1996-2005



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For the past ten years financial and production data was collected from Ohio dairy farms, participating in educational programs. Using the computer program FINACK, Farm Business Planning and Analysis instructors and Extension Educators submitted data into the national farm financial data base, FINBIN. Located at the University of Minnesota, the Center of Farm Financial Management maintains one of the largest and most accessible sources of farm financial and production benchmark information in the world. FINBIN places detailed reports on whole farm, crop, and livestock financials at your fingertips. Their web site is: <http://www.finbin.umn.edu/>.

Using the larger FINBIN data base, benchmarks can be established and Ohio farm data can be compared with confidence. The average Ohio dairy herd is just over 100 cows and Minnesota reports farms of similar size. The cost of production is determined on a cow and replacement (whole herd) basis and includes an opportunity cost for home grown feed. In other words, homegrown feed, such as corn and alfalfa hay, is valued from a twelve month average farm value, reported by the Ohio Agriculture Statistics Service. For example, the total feed cost per hundred weight of milk sold (including feed for the replacements) in 2005 was \$7.29 for 6 Ohio farms averaging 104 cows (19,063 pounds milk sold/cow/year) and \$6.60 for 421 Minnesota farms averaging 116 cows (20,671 pounds). To be most profitable, the goal is \$6.50 total feed cost per hundred.

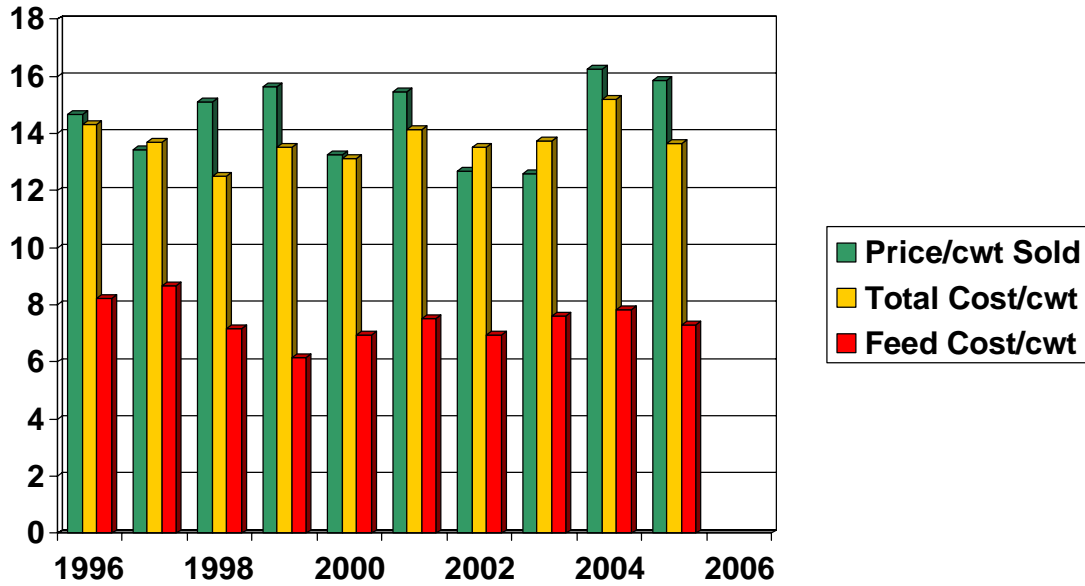
Dairy farm financial goals are important to consider and comparisons of these goals are every bit as important as production goals for the long term viability of a business. The following are these goals:

- Return on Assets > 7%
- Return on Equity >ROA
- Operating Profit Margin 20 to 30 %
- Asset Turnover 50 to 75 %
- Term Debt Coverage 1.25 to 1.50
- Expense as % Income < 75 %
- Debt to Asset < 40 %

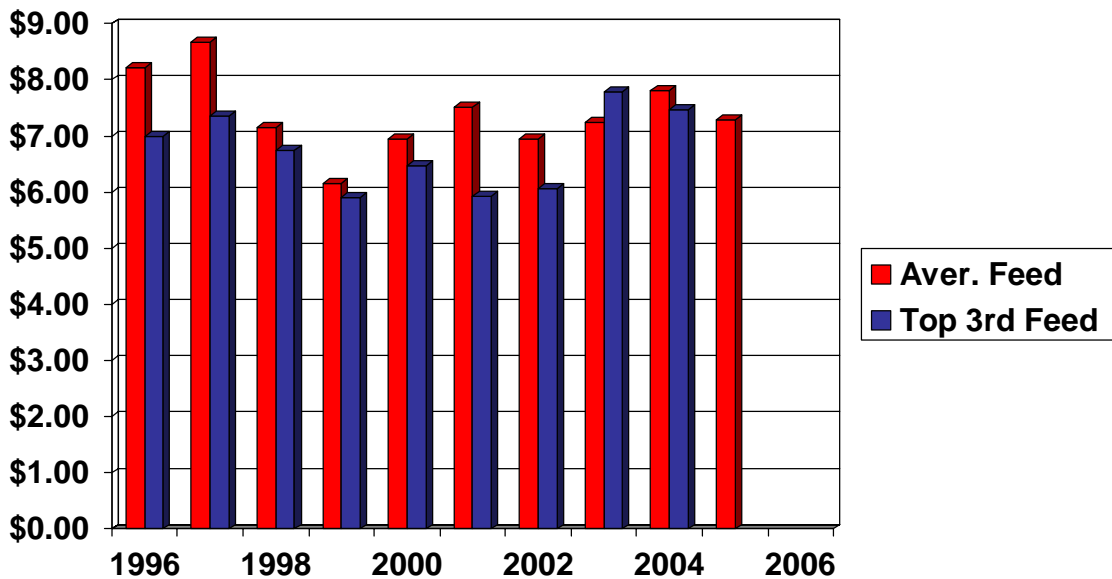
## Financial Summary of Dairy Farms in OH & MN (market value) 1996-2004

|             | Ohio     | Ohio      | Minnesota | Minnesota |
|-------------|----------|-----------|-----------|-----------|
|             | Average  | Top 20%   | Average   | Top 20%   |
| NFI         | \$51,011 | \$127,335 | \$66,017  | \$192,635 |
| ROA %       | 4.2      | 8.4       | 7.4       | 10.8      |
| ROE %       | 3.0      | 9.2       | 9.1       | 15.0      |
| OPM %       | 12.9     | 19.9      | 23.0      | 29.5      |
| Asset TO    | 32.8     | 42.0      | 32.1      | 36.4      |
| Term Debt   | 163      | 197       | 144       | 212       |
| Work. Cap.  | \$18,775 | \$22,183  | \$31,095  | \$71,065  |
| Exp. % Inc. | 80.9     | 74.4      | 76.4      | 71.7      |
| D/A Ratio   | 33       | 33        | 44        | 42        |

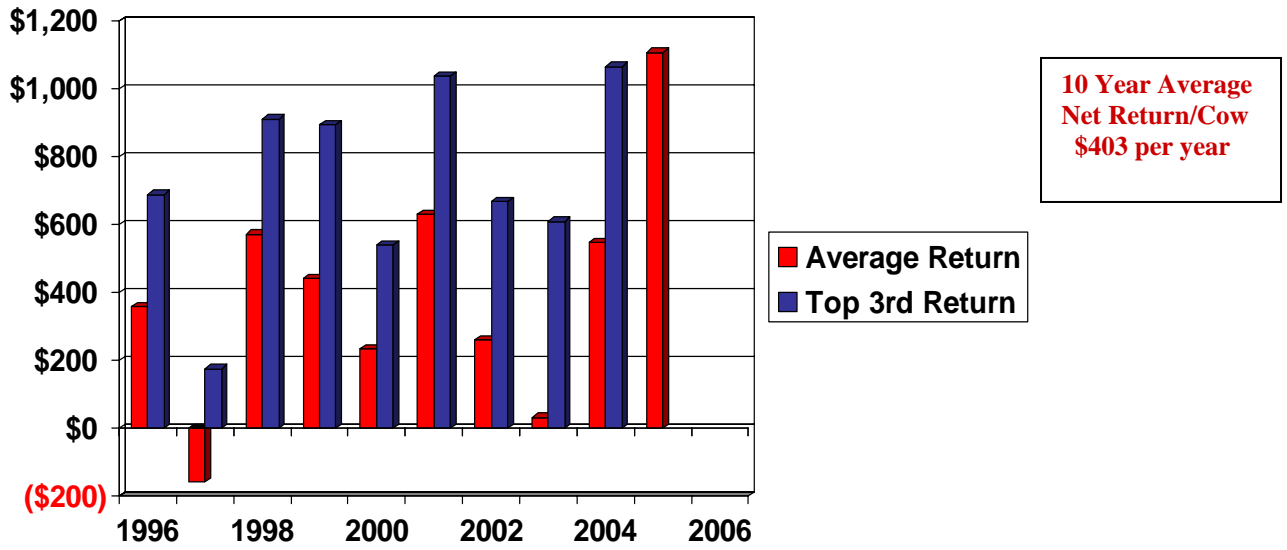
## Cost of Production-Dairy with Replacements- Ohio 1996-2005



## Feed Cost/cwt. Ohio Dairy Farms- Cow & Replacements



## Net Returns per Cow on Ohio Dairy Farms 1996-2005



## 2005 Minnesota Dairy Farm Data by Size of Farm and Individual Operator: <http://www.finbin.umn.edu/0607.aspx>

“Large herds have consistently produced more milk per cow, have received higher prices for their milk, and have earned much higher whole farm net incomes but they have also had higher costs per head. Those trends continued in 2005 but the difference in costs was out-weighted by the production and price advantage, resulting in slightly higher returns per cow for larger herds.”

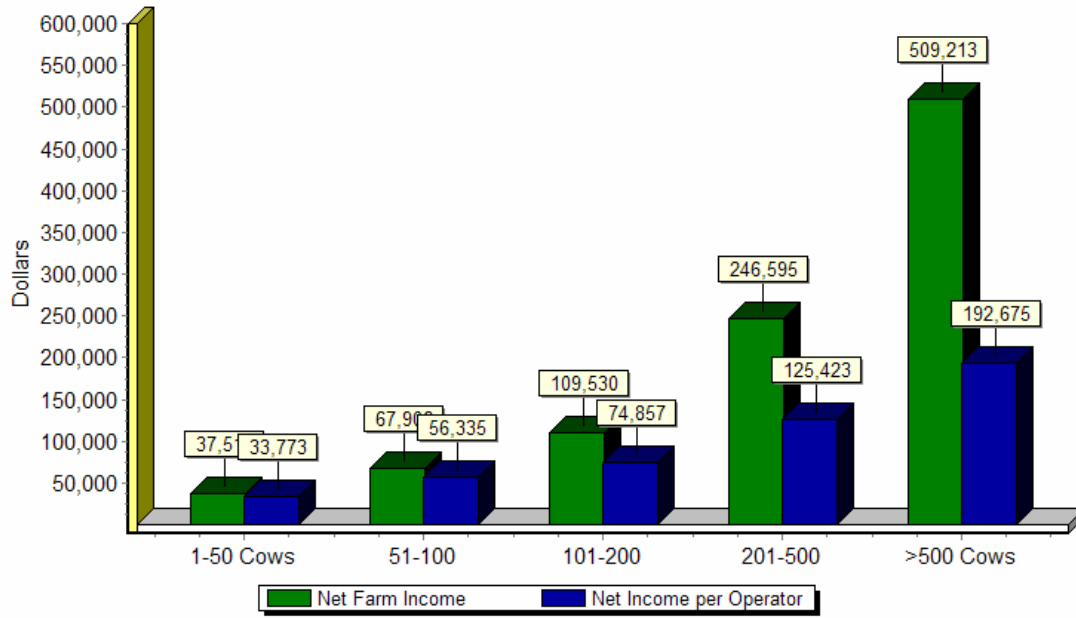
“While large herds generated more milk per cow, they also had higher expenses. The expenses shown include all direct and overhead expenses and either actual payments or a charge for owner/operator labor and management. Compared to 51 to 100 cow herds, those with over 500 cows paid \$170 more for feed and \$300 more for non-operator labor. Their depreciation and interest costs were only slightly higher, somewhat negating the theory that recent expansion costs explain the difference. There was evidence of significant size economies in only a few overhead expense categories such as insurance, utilities, and operator labor expense.”

“Consistent with previous years, large herds received a higher price per hundredweight, but the difference seems to be diminishing. The largest herds received, on average, just \$.44 more per cwt. than herds of 51 to 100 cows. That difference has been as much as \$1.00 in previous years.”

“[Large herds earned much higher net incomes than smaller herds on both a whole farm and per operator basis.](#) These results are consistent but with greater magnitude compared with previous years. We might call this the Wal-Mart effect—you can make a lot of money on a small margin (although their margin was not that small in 2005) if you have enough volume.”

## Dairy Net Farm Income By Herd Size

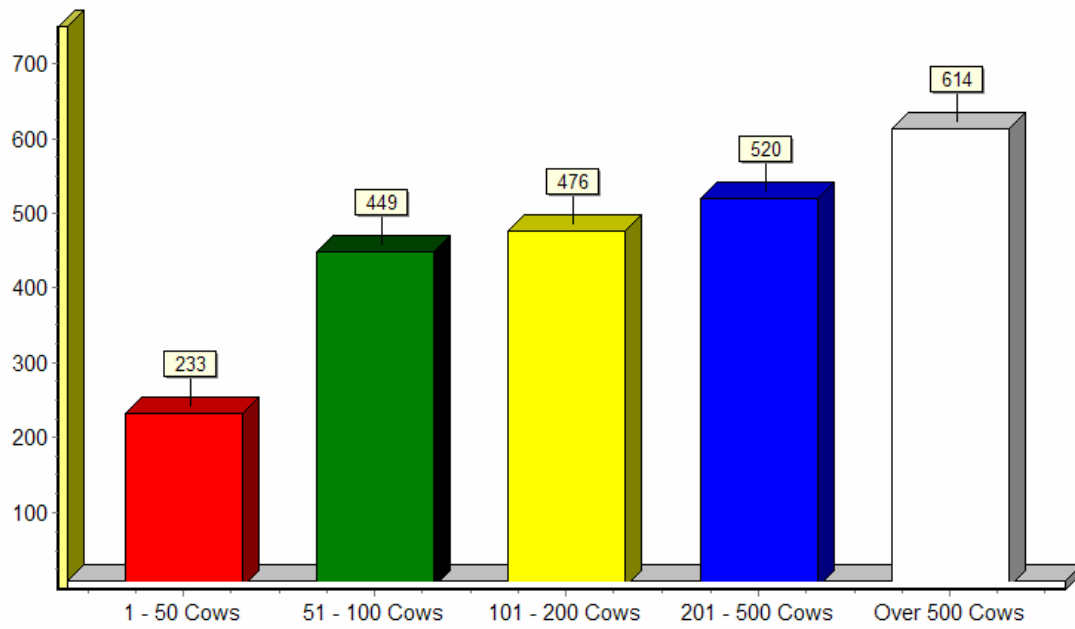
FINBIN Database, Minnesota Average, 2005



Data Sources: Minnesota Farm Business Management Education  
SE & SW Minnesota Farm Business Management Associations, U of M  
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## Net Return Per Cow By Herd Size

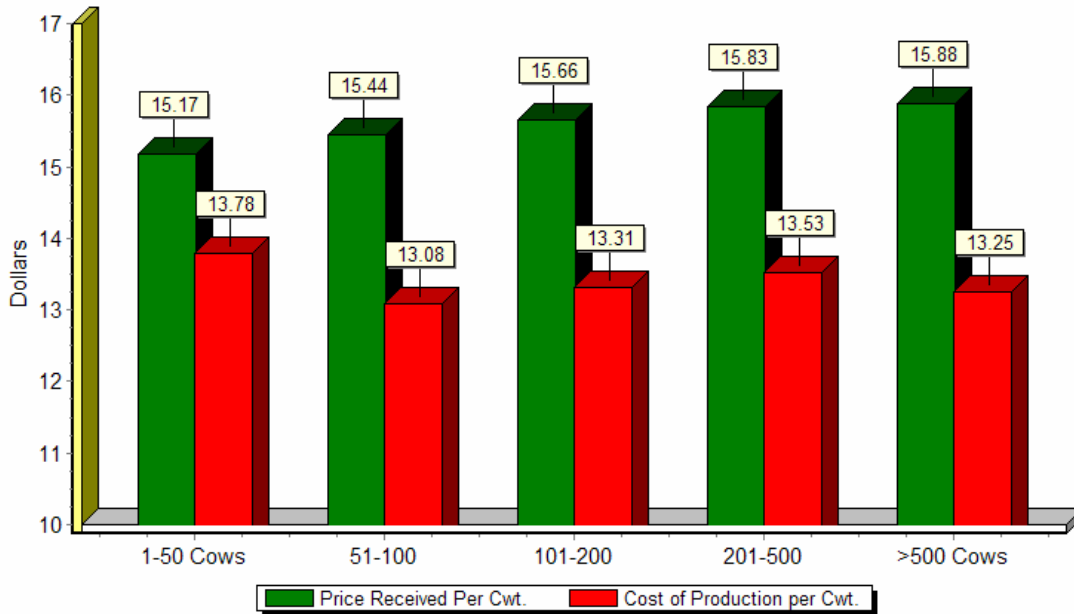
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## Milk Price vs. Cost of Production By Herd Size

FINBIN Database, Minnesota Average, 2005



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