



The Ohio State University

1981 DAIRY REPORT, OHIO

by
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and Brian H. Watkins

Department of
Agricultural Economics
and Rural Sociology

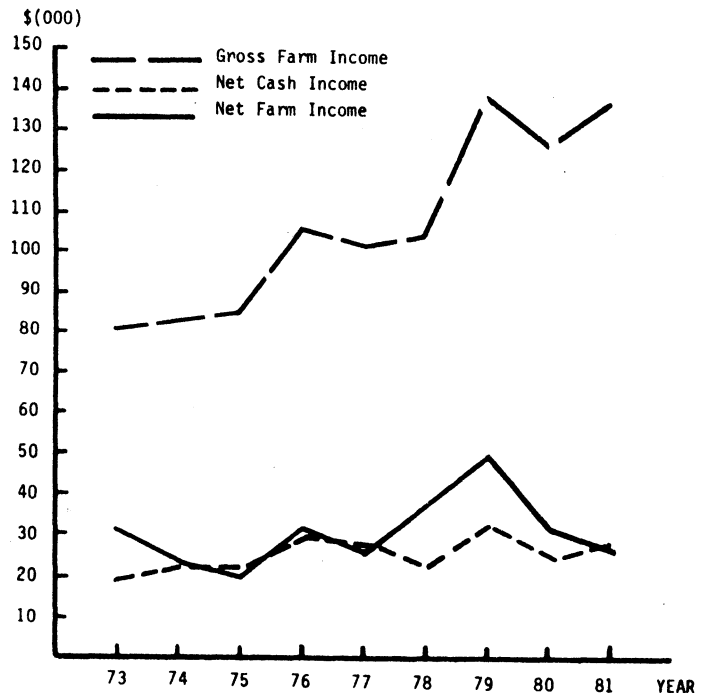
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FIGURE 1

SELECTED INCOME MEASURES

DAIRY FARMS IN OHIO FARM BUSINESS ANALYSIS, 1973-81



This report summarizes 65 owner-operator and tenant landlord dairy farms sent to The Ohio State University for analysis. They were selected from 350 farms because of their completeness. A more detailed summary of these farms is given in the Dairy Summary (Extension No. MM 353, ESO No. 905) and the Dairy Summary by Herd Size (Extension No. MM 354, ESO No. 906).

Figure 1 illustrates the trends of gross, net farm, and net cash income from 1973 to 1981. While gross farm income increased approximately 68 percent, net farm and net cash incomes remained relatively constant over the period. This suggests that while the total volume of money handled by a farm business has increased, the actual incomes of these dairy farmers decreased because of inflation.

Value of milk sold during the 1973 to 1981 period increased, Figure 2. However, total cost of milk sold has kept pace with the value of milk sold. Throughout most of the period, total cost of producing milk has surpassed the value of milk sold.

Figures 1 and 2 present average costs and revenues. Tables 1 and 2 break down the 1981 dairy farm revenues and expenses into categories based on return to unpaid operator labor and management income. The upper 25% of the dairy farms generated profits (see Table 1 and milk production costs per cwt., Table 2). These upper 25% farms produced profits by 1) having larger businesses than the middle 50% and lower 25% farms, 2) having efficient producing cows, and 3) effectively controlling costs.

FIGURE 2

MILK PRODUCTION COSTS AND REVENUES PER \$ CWT.

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The upper 25% generated 2.3 times more gross income per \$1,000 invested than did the lower 25% farms (see gross income per \$1,000 inv., Table 1). Note that the upper farms had larger operations on smaller investments than did the lower group. This caused the percentage of overhead costs to be higher for the less efficient business because of the need to maintain larger investments on less output. Ways to increase and maintain production per investment dollar needs examination.

One manner of raising productivity is to increase the amount of milk produced per cow. The average pounds of milk each cow produced were 14,134, 14,451, 14,059 and 13,588 for the upper 10%, upper 25%, middle 50% and lower 25% dairy farms, respectively. If the lower 25% farms had the same milk production as the upper 25% dairy, \$6,788 of additional income would be generated for this class.

Another area of concern is cost control. The cost differential of producing a cwt of milk between the upper 25% and lower 25% farms was \$3.30. 38% of this variation was feed costs. This emphasizes the need for efficient producing cows.

As dairy farmers try to increase profit, efficient use of assets and cost control must be examined. These factors will increase in importance as dairy supports are eased and/or rolled back. Marginal cows may have to be sold. An invaluable aid is making these management decisions is a good set of records.

Table 1 -- Income and Expense Report
Ohio Dairy Farms, F.B.A., 1981

| | Rank by Family Labor & Management Income Per Hour To farm | | | |
|---|--|-----------|------------|-----------|
| | Upper 10% ^{1/} | Upper 25% | Middle 50% | Lower 25% |
| Unit | 6 | 16 | 33 | 16 |
| Number of Farms | | | | |
| INCOME | | | | |
| Cash Receipts | \$ 154,036 | 145,658 | 119,217 | 114,313 |
| Capital Gains & Losses | \$ 3,298 | -8,272 | 7,341 | 8,953 |
| Inventory Changes | \$ 19,175 | 10,961 | 6,360 | -8,984 |
| - Feeder Livestock | \$ 0 | -28 | -363 | -18 |
| Gross Farm Income | \$ 176,509 | 148,319 | 132,555 | 114,264 |
| EXPENSES | | | | |
| Cash Expenses | \$ 111,965 | 96,375 | 91,319 | 98,424 |
| Depreciation | \$ 11,544 | 15,584 | 14,367 | 18,543 |
| Interest Not Charged | \$ 15,793 | 17,763 | 25,583 | 23,830 |
| Unpaid Operator & Family Labor | \$ 21,538 | 26,049 | 19,851 | 21,982 |
| - Feeder Livestock | \$ 0 | -28 | -363 | -18 |
| Total Farm Expense | \$ 160,840 | 155,743 | 150,757 | 162,761 |
| MANAGEMENT INCOME & PROFIT | | | | |
| Total | \$ 15,669 | -7,424 | -18,202 | -48,497 |
| As a Percent of Gross Income | \$ 8.9 | -5.0 | -13.7 | -42.4 |
| UNPAID OPERATOR & FAMILY LABOR | | | | |
| Total | \$ 21,538 | 26,049 | 19,851 | 21,982 |
| As a Percent of Gross Income | \$ 12.2 | 17.6 | 15.0 | 19.2 |
| OVERHEAD COSTS | | | | |
| Total | \$ 45,585 | 52,004 | 56,609 | 67,303 |
| As a Percent of Gross Income | \$ 25.8 | 35.0 | 42.7 | 58.9 |
| VARIABLE COSTS | | | | |
| Total | \$ 93,717 | 77,690 | 74,297 | 73,476 |
| As a Percent of Gross Income | \$ 53.1 | 52.4 | 56.0 | 64.3 |
| NET CASH INCOME | | | | |
| | \$ 42,071 | 49,283 | 27,898 | 15,889 |
| NET FARM INCOME | | | | |
| | \$ 53,000 | 36,388 | 27,232 | 2,685 |
| INVESTMENT | | | | |
| Total | \$ 255,198 | 297,789 | 378,679 | 462,352 |
| Return to Investment | \$ 38,637 | 19,377 | 16,689 | -6,885 |
| Percent Return on Investment | \$ 15.1 | 6.5 | 4.3 | -1.5 |
| Gross Income per \$1,000 Inv. | \$ 692 | 498 | 342 | 247 |
| FAMILY LABOR & MANAGEMENT INCOME | | | | |
| Total | \$ 37,207 | 18,625 | 1,649 | -26,515 |
| Per Hour | \$ 7.84 | 3.5 | .36 | -5.86 |

Table 2 -- Selected Dairy Farm Figures
Ohio, F.B.A., 1981

| SIZE OF BUSINESS | Unit | Upper 10% | Upper 25% | Middle 50% | Lower 25% |
|--|--------|-----------|-----------|------------|-----------|
| Number of Men | M.Y.E. | 2.29 | 2.34 | 2.09 | 2.13 |
| Number of Cows | Hd. | 77.8 | 66.3 | 55.5 | 61.6 |
| Pounds of 3.5 Milk Sold | Lb. | 1,099,644 | 958,133 | 780,286 | 836,997 |
| Total Harvested Crop Acres | A. | 175 | 218 | 196 | 170 |
| Acres Corn & Corn Silage | A. | 86 | 100 | 86 | 72 |
| Soybean Acres | A. | 0 | 12 | 13 | 2 |
| Alfalfa & Clover-Mixed Hay | A. | 48 | 55 | 48 | 34 |
| Capital Investment | \$ | 255,198 | 297,789 | 382,679 | 462,352 |
| Gross Income | \$ | 176,509 | 148,319 | 132,555 | 114,264 |
| Value of All Crops | \$ | 45,530 | 56,698 | 45,119 | 45,855 |
| Value of Net Livestock Increase | \$ | 151,497 | 135,273 | 116,555 | 113,845 |
| EFFICIENCY FACTORS | | | | | |
| Gross Income Per Man | \$ | 77,078 | 63,384 | 63,423 | 53,645 |
| Total Labor & Management Income Per Fulltime Operator | \$ | 26,576 | 12,094 | 1,278 | -21,383 |
| All Crop Production Value Per Acre | \$ | 260 | 260 | 230 | 270 |
| Machinery Investment Per Tillable Acre | \$ | 269 | 253 | 284 | 354 |
| Machinery Cost Per Tillable Acre | \$ | 138 | 123 | 137 | 292 |
| Harvested Crop Acres Per Man | A. | 76 | 93 | 95 | 80 |
| MILK PRODUCTION COSTS PER CWT. | | | | | |
| Purchased Feed | \$ | 3.76 | 2.80 | 2.92 | 2.95 |
| Hired labor | \$ | .46 | .41 | .46 | .49 |
| Paid Interest | \$ | .33 | .42 | .48 | .82 |
| Breeding Fees | \$ | .18 | .28 | .27 | .30 |
| Other Cash | \$ | 1.60 | 1.54 | 1.62 | 1.87 |
| Total Cash Expenses | \$ | 6.33 | 5.45 | 5.75 | 6.43 |
| Homegrown Feeds | \$ | 2.54 | 3.82 | 4.09 | 4.92 |
| Depreciation | \$ | .57 | .78 | .76 | 1.24 |
| Unpaid Labor | \$ | 1.55 | 1.89 | 1.73 | 2.06 |
| Interest Not Charged | \$ | .78 | 1.88 | 1.32 | 1.47 |
| Total Non-Cash Expenses | \$ | 5.44 | 7.37 | 7.90 | 9.69 |
| Total Cost of Milk Sold | \$ | 11.77 | 12.82 | 13.65 | 16.12 |
| DAIRY PERFORMANCE FACTORS | | | | | |
| Value of Milk Sold, Per Cwt. | \$ | 12.44 | 12.64 | 12.73 | 12.77 |
| Pounds of 3.5 Milk Sold Per Cow | Lb. | 14,134 | 14,451 | 14,059 | 13,588 |
| Dairy Returns Per \$1 Feed Fed | \$ | 1.97 | 1.90 | 1.81 | 1.62 |
| Pounds of 3.5 Milk Sold Per Man | Lb. | 480,193 | 409,458 | 373,342 | 392,956 |
| Enterprise Only (Milk Summary) | Lb. | 585,956 | 560,312 | 511,104 | 506,248 |
| Number of Cows Per Man | Hd. | 34 | 28 | 27 | 29 |
| Enterprise Only (Dairy Summary) | Hd. | 41 | 39 | 36 | 37 |
| Value of Dairy Increase | \$ | 14,726 | 11,927 | 14,374 | 4,925 |
| Value of Milk Sold | \$ | 136,770 | 121,079 | 99,366 | 106,924 |
| Total Value of Dairy Production | \$ | 151,496 | 133,006 | 115,740 | 111,849 |
| Value of Production Per Cow | \$ | 1,947 | 2,006 | 2,049 | 1,816 |
| Value of Milk Sold Per Cow | \$ | 1,758 | 1,826 | 1,790 | 1,735 |
| Feed Cost for Milk Per Cow | \$ | 891 | 957 | 986 | 1,069 |
| Value of Milk Over Feed Cost/Cow | \$ | 7 | 869 | 804 | 666 |
| Unpaid Labor and Mgmt. Inc./Cow | \$ | 347 | 271 | 129 | -184 |

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RECEIVED



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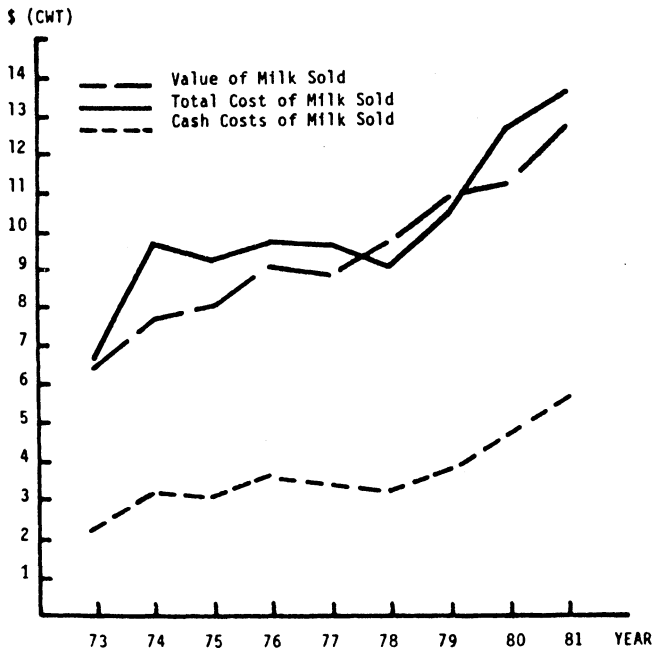
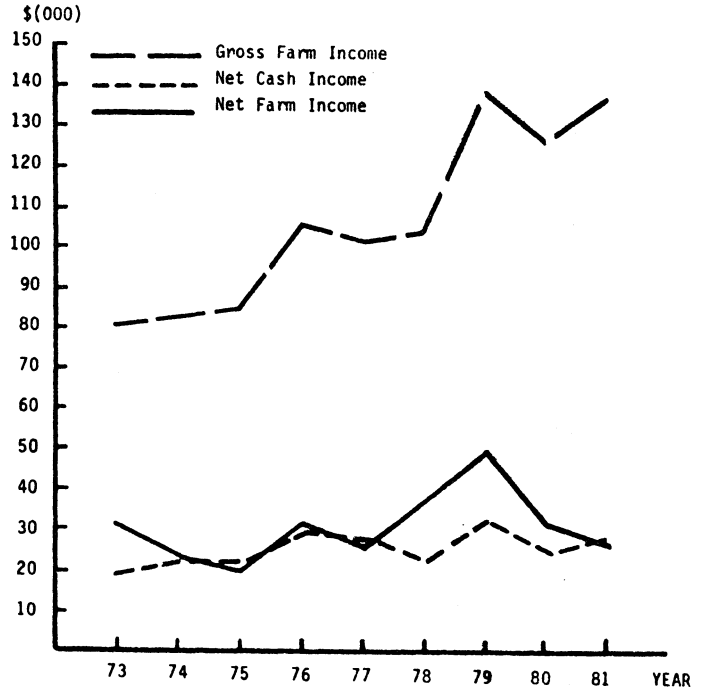


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