## Staff Paper

Cost By Milk Sold and Herd Size, 1995
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A major conclusion from this data is that neither size nor production per cow consistently explains much about the major variability in profits that occur from farm to farm, given the analysis done. Average results on a few farms with over 300 cows may be of cursory interest.
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# COSTS BY MILK SOLD AND HERD SIZE, 1995 

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## Introduction

This staff paper presents the 1995 financial and production results of a sample of Michigan dairy farms in two ways. First, the sample is divided into groups by size of herd; averages for each group of several costs and factors are shown. Second, the sample is divided by milk sold per cow; factors that vary with milk production are discussed. Appendix tables give all the cost data available from the accounting summary.

A major conclusion from this data is that neither size nor production per cow consistently explains much about the major variability in profits that occur from farm to farm, given the analysis done. Average results on a few farms with over 300 cows may be of cursory interest.

The data source is Michigan State University's Telfarm accounting system. It is supported by extension field staff. Farmers either mail in forms to be processed, or keep monthly records on personal computers and mail monthly balances on disk to the university. Farms in the system were included if milk made up 70 percent or more of income, and if the records were complete. This is not a random sample. For the size groups in Table 1, going from small to large, the number of farms were 32, 34, 31, 40 and 9, respectively. Six of the 9 farms in the 300 or more group are also among the 40 farms in the 150 or more group. Data from the other 3 were not received in time to process with 150 or more group. The 150 or more group had an average of 253 cows. The 300 or more group averaged 528 cows.

## Variations with Size

Table 1 shows the average management income for each size group. This is a profit measure. Income includes inventory changes. Costs include a noncash charge of about $6.5 \%$ interest on equity, plus $\$ 6.70$ per hour for unpaid operator and family labor. For this sample of farms, Table 1 indicates size groups did not correlate well with management income in 1995.

Table 1. MANAGEMENT INCOME AND PRODUCTION FACTORS Michigan Telfarmers, 1995

| Number <br> of Cows | Management <br> Income | Milk Sold <br> Per Cow | Production <br> Cost/Cwt. | Acres <br> Farmed |
| ---: | :---: | :---: | :---: | :---: |
| Less than 65 | S Per Farm <br> $(20,294)$ | lbs. <br> 16,285 | Ser Cwt. <br> 14.46 | Per Cow <br> 7.0 |
| $65-99.9$ | 11,269 | 18,845 | 11.71 | 5.5 |
| $100-149.9$ | $(1,326)$ | 20,729 | 12.38 | 5.7 |
| 150 or more | $(27,885)$ | 20,322 | 12.55 | 3.3 |
| 300 or more | 46,332 | 21,732 | 11.28 | 2.6 |

The 9 farms with 300 or more cows made a lot more money in 1995, on the average, than did the smaller farms. They also sold the most milk per cow, had the lowest cost of producing a hundred pounds (cwt.) of milk, and farmed the least acres per cow. The acres farmed are owned plus rented. Also, the 300 or more group averaged to sell over $\$ 50,000$ of cash crops including corn, soybeans and wheat. Those with fewer than 65 cows had about $\$ 10,000$ of cash crop sales.

Table 2 shows the livestock costs, summarized into major categories, resulting from averaging all the farms together. Note that feed costs, in this special ranking, are 53 percent of total costs. For this paper, it is assumed all farm grown feeds are purchased from the crops enterprises on the farm. In other words, cost allocation has been done so as to identify only the costs directly associated with livestock. The cropping activity costs are left out of Table 2. The percent of total pertains only to the livestock costs.

Table 2. AVERAGE COSTS PER FARM, LIVESTOCK ONLY
137 Dairy Telfarmers, 1995

| Category | Total <br> Farm | $\begin{aligned} & \text { Per } \\ & \text { Cow } \end{aligned}$ | Percent of Total |
| :---: | :---: | :---: | :---: |
|  | dollars |  | \% |
| Feed Fed | 186,564 | 1,403 | 53 |
| Livestock Services | 69,369 | 522 | 19 |
| Labor | 49,116 | 369 | 14 |
| Power \& Equipment | 20,249 | 152 | 6 |
| Buildings, Improvements | 15,642 | 118 | 4 |
| Other Costs | 10,972 | 83 | 3 |
| Land Charges | 1,298 | 10 | 1 |

The per cow columns in Table 3 pertain only to the milk producing side of the business. Feed cost includes purchased feed plus "buying" the farm produced feed at a conservative market value. Management income for the whole farm in Table 1 was split between cows and crops in Table 3. It appears dairy farmers lose money on their cropping enterprises. Most recover it on the cow side. This has been the case for over 2 decades in Michigan State University's farm accounting summaries.

Table 3. DAIRY INCOME PER COW AND PER ACRE Michigan Telfarmers, 1995

| Number <br> of Cows | Dairy <br> Income | Feed <br> Cost | Non-Feed <br> Costs | Management | Income |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Less than 65 | Per Cow <br> $\$ 2,343$ | Per Cow <br> $\$ 1,385$ | Per Cow <br> $\$ 1,211$ | Per Cow <br> $(\$ 253)$ | Per Acre <br> $(\$ 26)$ |
| $65-99.9$ | 2,701 | 1,354 | 1,139 | 208 | $(12)$ |
| $100-149.9$ | 2,874 | 1,472 | 1,291 | 111 | $(21)$ |
| 150 or more | 2,770 | 1,392 | 1,283 | 95 | $(61)$ |
| 300 or more | 3,028 | 1,292 | 1,352 | 384 | $(114)$ |

The feed costs are split up in Table 4. "Other feeds" are nearly all cash purchases. They include heifer feed, minerals, grain and protein supplements for the milking herd. It appears the 300 or more group tends to feed more corn silage and less hay crops, while buying more of their high energy feeds. Remember, size is somewhat related to production per cow, which in turn influences feed costs. Oats and barley typically make up less than $8 \%$ of the costs in their column.

Table $4 . \quad$ BREAKDOWN OF DAIRY FEED COSTS Michigan Telfarmers, 1995

| Number <br> of Cows | Corn, Oats, <br> \& Barley | Corn <br> Silage | Hay and <br> Pasture | Other <br> Feeds |
| ---: | :---: | :---: | :---: | :---: |
| Less than 65 | 223 | 142 | Per Cow | 582 |

Table 5 shows operator labor per cow is quite high on the smaller farms, while hired labor becomes a more important factor on the larger farms. On smaller dairies it appears that how well the operators manage their own time is a big factor in labor efficiency. More management attention is needed on bigger farms to supervise the hired labor force if labor costs are to be kept in check and efficiency maintained. Operator and unpaid family were charged a noncash $\$ 6.70$ per hour.

Table 5. LABOR COST PER COW BY SOURCE
Michigan Telfarmers, 1995

| Number <br> of Cows | Operator | Unpaid <br> Family | Hired | Total |
| :--- | :---: | :---: | :---: | :---: |
| Less than 65 | 242 | per <br> cow <br> 115 | 99 | 456 |
| $65-99.9$ | 122 | 75 | 165 | 362 |
| $100-149.9$ | 78 | 71 | 233 | 382 |
| 150 or more | 33 | 43 | 281 | 357 |
| 300 or more | 9 | 19 | 351 | 379 |

Table 6 shows the machinery and annual costs assigned to crops or dairy production. The trend shows that larger farms have larger machinery investments per acre, and per cow. In 1995, the annual operating costs were also higher on the larger farms. Building investment and annual costs show a pattern similar to Table 6 (see Appendix Tables A and B).

Table 6. MACHINERY: CROPS VERSUS DAIRY Michigan Telfarmers, 1995

| Number of Cows | Crops Machinery |  | Dairy Equipment |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Invested | Costs | Invested | Costs |
|  | \$ Per Acre |  | \$ Per Cow |  |
| Less than 65 | 91 | 65 | 170 | 136 |
| $65-99.9$ | 88 | 92 | 163 | 143 |
| 100-149.9 | 103 | 91 | 161 | 151 |
| 150 or more | 159 | 112 | 243 | 160 |
| 300 or more | 151 | 118 | 231 | 150 |

Managers invest in machinery to reduce labor costs and physical effort. The average dairy labor cost (operator + unpaid family + cash hired) going from small to large groups was \$456,
$\$ 362$, $\$ 382$, $\$ 357$, and $\$ 379$ per cow, respectively. It's tempting to say the 300 or more group invested (231-170) $=\$ 61$ more in dairy equipment per cow than did those with less than 65 cows, and thereby saved $(456-379)=\$ 80$ per cow in annual dairy labor costs. Do the same calculation comparing the 100-149.9 group and the 300+ group, and size advantage is not as clear!

Table 7 shows 2 cost items that tend to be higher per cow on the larger farms. Health care is made up of veterinary, medicine and drug costs. Telfarm assigns BST expenses to health cost. Bedding makes up most of the right most column in Table 7.

Table 7. VETERINARY AND BEDDING COSTS PER COW Michigan Telfarmers, 1995

| Number <br> of Cows | Health <br> Care | Bedding, DHI <br> \& Registrations |
| ---: | :---: | :---: |
| Less than 65 | 52.03 | \$Per Cow |
| $65-99.9$ | 63.54 | 52.45 |
| $100-149.9$ | 105.29 | 51.06 |
| 150 or more | 102.80 | 57.81 |
| 300 or more | 100.98 | 63.57 |

Few costs per cow in 1995 trended downward as size groupings increased. Table 8 shows insurance costs did go down. This includes insurances other than vehicle insurance.

> Table 8. INSURANCE COSTS PER COW BY FARM SIZE Michigan Telfarmers, 1995

| Number <br> of Cows |
| :--- |
| Less than 65 Insurance <br> Per Cow <br> $65-99.9$ 28.69 <br> $100-149.9$ 25.44 <br> 150 or more 22.58 <br> 300 or more 19.06 |

## Size Versus Production Level

Up to this point, $I$ have shown how per unit dairy farm costs vary by size of farm. Rather than get bigger to get more profit, some would rather get better. Better usually means more milk sold per cow. Using this measure, the next few tables show how higher producing herds control their various costs.

Management income per cow tends, although not smoothly, to go up as pounds of milk sold per cow increases. The 26 farms with under 15,000 pounds of milk sold per cow lost $\$-120$ per cow in 1995. Those 25 farms with over 23,000 pounds of milk made $\$ 373$ per cow and earned 18.8 percent on their dairy investment. Table 9 shows both these measures of ecnomic profit.

Table 9. MANAGEMENT INCOME AND RETURN ON INVESTMENT, PER COW 137 Michigan Telfarmers, 1995

| Pounds of Milk <br> Sold Per Cow | Management <br> Income | Return on <br> Owned Capital |
| ---: | ---: | ---: |
| Under 15,000 | per cow <br> Sow |  |
| $15,000-16,999$ | -120 | 0.6 |
| $17,000-18,999$ | -133 | -2.1 |
| $19,000-20,999$ | 66 | 0.3 |
| $21,000-22,999$ | 379 | 8.9 |
| 23,000 or More | 373 | 20.8 |

Although the trend is again not smooth, the farms in Table 10 with higher production per cow also tend to be larger. Net worth appears not to be associated with production level per cow, which is a change from previous years.

Table 10. COWS AND NET WORTH POSITION, TOTAL FARM 137 Michigan Telfarmers, 1995

| Pounds of Milk | Number <br> of Farms | Number <br> of Cows | Net Worth as <br> $\%$ of Assets |
| :---: | :---: | :---: | :---: |
| Under 15,000 | 26 | 81 | 73 |
| $15,000-16,999$ | 25 | 106 | 73 |
| $17,000-18,999$ | 23 | 152 | 81 |
| $19,000-20,999$ | 20 | 144 | 75 |
| $21,000-22,999$ | 18 | 144 | 79 |
| 23,000 or More | 25 | 180 | 76 |

Cost control does not always mean cost minimization. Table 11 shows that as milk per cow went up, feed costs also tended to go up. The return above feed costs is more dramatic, suggesting income sources other than milk, such as cow sales and inventory changes may differ by production level.

Table 11. FEED COSTS AND RETURN ABOVE FEED COSTS, PER COW 137 Michigan Telfarmers, 1995

| Pounds of Milk <br> Sold Per Cow | Feed <br> Disappearance | Return Above <br> Feed Costs |
| :---: | ---: | ---: |
| Under 15,000 | \$s per cow |  |
| $15,-16,999$ | 1,179 | 902 |
| $17,-18,999$ | 1,362 | 847 |
| $19,-20,999$ | 1,260 | 1,042 |
| $21,-22,999$ | 1,420 | 1,331 |
| 23,000 or More | 1,347 | 1,771 |

Unlike variation in size, the labor cost per cow did not go down very much as milk per cow increased. The labor was highest for the highest milk production group, but did not correlate well with production changes.

Livestock services did go up with production, as shown in Table 12. Some, but not all, of the livestock services components are shown. Marketing and trucking are left out; they go up directly with the amount of milk sold. Not so obvious is why breeding, and health care, and supplies, tend to increase per cow as production per cow goes up. Again, it appears cost control is better than cost elimination.


Figure 1 shows the livestock costs on a per hundred weight (Cwt) basis. The curves both increase and decrease going from the lower to higher levels of milk sold per cow. Of these selected cost items, marketing is the largest. It is made up of milk hauling, assessments, marketing dues and cattle trucking charges.

The remaining cost items you might think about were not closely related to production per cow. The substantially higher net income levels earned by dairy farmers in this sample seemed more related to knowing where to spend their operating funds as opposed to trying to minimize all costs. It appears that to get more milk per cow, one needs to judiciously spend more on feed, semen, health care, and marketing services while holding other costs about average.

Figure 1.

Source: Roger Betz

## Appendix

Appendix Tables $A, B, C$, and $D$ contain a full listing of the livestock and crop cost categories output by the Telfarm system. Only selected items were summarized in the above paper. The reader is invited to peruse the appendix for further understanding of dairy farm cost structures and variations in this sample for 1995.

APPENDIX TABLE A.
Telfarm Dairy Averages, 1995, By Size

|  | Less than 65 Cows | $\begin{gathered} \text { 65-100 } \\ \text { Cows } \end{gathered}$ | $\begin{gathered} 100-150 \quad 1 \\ \text { Cows } \end{gathered}$ | 150 or more Cows | $\begin{array}{r} 300 \text { or } \\ \text { more Cows } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of farms | 32 | 34 | 31 | 40 | 9 |
| Net Worth | \$357,940 | \$496,689 | \$694,353 \$1 | \$1,196,228 | \$2,001,913 |
| Net worth as \% of assets | 80\% | 79\% | 81\% | 72\% | 65\% |
| Total Tillable Acres 324.4 | 447.0 | 705.3 | 828.9 | 9 1,371.5 |  |
| Number of Cows | 46.51 | 81.13 | 124.78 | 252.56 | 527.55 |
| Milk sold per cow, lbs. | 16,285 | 18,845 | 20,729 | 20,322 | 21,732 |
| FEED COSTS (\$ Per Cow) : |  |  |  |  |  |
| Corn | 196 | 168 | 275 | 231 | 119 |
| Corn silage | 142 | 152 | 142 | 186 | 228 |
| Oats | 17 | 3 | 5 | 2 | 1 |
| Barley | 10 | 13 | 9 | 2 | 0 |
| Hay equivalent | 547 | 554 | 517 | 306 | 209 |
| Pasture | 35 | 16 | 15 | 3 | 1 |
| Other feed cost | 428 | 448 | 509 | 662 | 734 |
| Total Feed Fed | \$1,375 | \$1,354 | \$1,472 | \$1,392 | \$1,292 |
| LIVESTOCK CoStS (\$ Per Cow) |  |  |  |  |  |
| Operator labor | 241.85 | 121.61 | 77.98 | 32.89 | 8.80 |
| Family Labor | 115.32 | 75.48 | 71.09 | 42.55 | 18.86 |
| Hired labor | 98.92 | 164.73 | 232.87 | 281.24 | 350.98 |
| Total Labor | 456.09 | 361.82 | 381.94 | 356.68 | 378.64 |
| Repairs \& vehicle maint. | 66.27 | 74.04 | 84.79 | 76.50 | 73.55 |
| Fuel, oil, grease | 6.04 | 6.16 | 7.25 | 7.92 | 6.82 |
| Depreciation | 54.00 | 52.95 | 48.99 | 60.35 | 55.08 |
| Interest on machines | 10.14 | 9.66 | 9.55 | 15.03 | 14.41 |
| Total Machinery | 136.45 | 142.81 | 150.58 | 159.80 | 149.86 |
| Repairs | 6.79 | 13.33 | 11.73 | 15.08 | 17.34 |
| Insurance | 28.69 | 25.44 | 22.58 | 19.06 | 17.91 |
| Depreciation | 38.30 | 40.63 | 45.04 | 71.82 | 75.88 |
| Interest, buildings | 12.50 | 15.11 | 13.52 | 32.80 | 37.52 |
| Total Buildings | 86.28 | 94.51 | 92.87 | 138.76 | 148.65 |
| Semen \& breeding | 21.64 | 20.92 | 27.29 | 25.26 | 25.30 |
| Vet., med., drugs | 52.03 | 63.54 | 105.59 | 102.80 | 100.98 |
| Marketing, trucking | 151.53 | 158.44 | 180.34 | 163.70 | 172.59 |
| Livestock supplies | 52.39 | 52.75 | 94.45 | 73.96 | 89.08 |
| DHIA, reg., bedding | 52.45 | 51.06 | 57.81 | 63.57 | 79.82 |
| Interest, livestock | 101.79 | 103.24 | 109.12 | 105.07 | 104.04 |
| Total Livestock | 431.83 | 449.95 | 574.60 | 534.36 | 571.81 |
| Land taxes | 4.72 | 5.44 | 3.95 | 13.70 | 23.21 |
| Interest on land | 1.27 | 1.06 | 0.60 | 0.57 | 0.26 |
| Land rent | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Land | 5.99 | 6.50 | 4.55 | 14.27 | 23.47 |
| Utilities | 73.42 | 64.32 | 69.70 | 62.52 | 62.10 |
| Miscellaneous | 20.90 | 19.11 | 16.75 | 16.43 | 17.64 |
| Total Other | 94.32 | 83.43 | 86.45 | 78.95 | 79.74 |

APPENDIX TABLE B.
Telfarm Crop Averages, 1995, By Size

|  | Less than 65 Cows | $\begin{gathered} \text { 65-100 } \\ \text { Cows } \end{gathered}$ | $\begin{gathered} 100-150 \\ \text { Cows } \end{gathered}$ | 150 or more Cows | $\begin{array}{r} 300 \text { or } \\ \text { more Cows } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OWNED ACRES of crops: |  |  |  |  |  |
| Corn | 47 | 76 | 115 | 149 | 235 |
| Corn Silage | 26 | 35 | 38 | 104 | 235 |
| Hay Crops | 93 | 105 | 118 | 186 | 224 |
| Pasture | 29 | 25 | 20 | 11 | 11 |
| Wheat | 8 | 18 | 16 | 19 | 60 |
| Soybeans | 12 | 14 | 12 | 26 | 41 |
| Oats | 9 | 2 | 4 | 5 | 0 |
| Barley | 4 | 1 | 5 | 2 | 0 |
| YIELD PER ACRE, owned crops |  |  |  |  |  |
| Corn | 96.3 | 112.0 | 114.9 | 118.6 | 103.5 |
| Corn Silage | 9.8 | 14.1 | 15.2 | 17.0 | 18.7 |
| Hay Crops | 3.4 | 4.6 | 4.6 | 4.6 | 5.5 |
| Pasture | 2.3 | 2.0 | 3.5 | 2.2 | 1.9 |
| Wheat | 46.0 | 49.2 | 51.7 | 49.9 | 58.1 |
| Soybeans | 40.6 | 41.4 | 39.8 | 38.6 | 39.3 |
| CROP COSTS (\$ per acre) |  |  |  |  |  |
| Operator labor | 29.45 | 18.78 | 12.51 | 6.96 | 2.15 |
| Family Labor | 14.04 | 11.65 | 11.40 | 9.01 | 4.60 |
| Hired labor | 12.05 | 25.43 | 37.35 | 59.52 | 85.68 |
| Total Labor | 55.54 | 55.86 | 61.26 | 75.49 | 92.43 |
| Repairs \& vehicle maint. | 17.83 | 28.59 | 30.14 | 30.92 | 30.95 |
| Fuel, oil, grease | 10.28 | 10.30 | 12.47 | 14.40 | 13.94 |
| Custom hire, lease | 5.09 | 13.29 | 10.97 | 14.89 | 23.08 |
| Depreciation | 26.37 | 34.74 | 31.34 | 42.01 | 40.38 |
| Interest on machines | 5.42 | 5.21 | 6.14 | 9.86 | 9.43 |
| Total Machinery | 64.99 | 92.13 | 91.06 | 112.08 | 117.78 |
| Repairs, conservation | 2.18 | 5.72 | 4.20 | 6.27 | 7.36 |
| Insurance | 3.39 | 3.44 | 3.20 | 3.63 | 3.69 |
| Lease | 0.08 | 0.96 | 1.79 | 8.41 | 20.71 |
| Depreciation | 4.09 | 4.92 | 5.16 | 8.09 | 7.14 |
| Interest, buildings | 1.78 | 2.11 | 1.75 | 3.86 | 3.94 |
| Total Buildings | 11.52 | 17.15 | 16.10 | 30.26 | 42.84 |
| Fertilzer and lime | 21.13 | 27.00 | 39.28 | 30.48 | 40.03 |
| Supplies, packaging | 1.07 | 0.44 | 1.34 | -1.35 | -4.39 |
| Seeds, plants | 10.75 | 12.94 | 17.73 | 15.21 | 17.28 |
| Chemicals | 11.77 | 15.02 | 12.56 | 19.35 | 27.75 |
| Other | 1.63 | 2.40 | 1.28 | 1.29 | 0.70 |
| Interest on crops | 7.52 | 10.00 | 10.86 | 15.56 | 19.12 |
| Total Crop Expense | 53.87 | 67.80 | 83.05 | 80.54 | 100.49 |
| Land taxes | 8.69 | 7.63 | 4.66 | 10.23 | 17.16 |
| Interest on land | 23.54 | 20.59 | 14.92 | 21.19 | 24.38 |
| Land rent | 8.74 | 16.00 | 28.52 | 30.14 | 51.61 |
| Total Land | 40.97 | 44.22 | 48.10 | 61.56 | 93.15 |
| Utilities | 2.20 | 1.92 | 2.07 | 1.94 | 1.90 |
| Miscellaneous | 2.55 | 2.95 | 2.69 | 3.48 | 4.31 |
| Total Other | 4.75 | 4.87 | 4.76 | 5.42 | 6.21 |

APPENDIX TABLE C.
Telfarm Dairy Averages, 1995, By Mik Per Cow

|  | POUNDS SOLD Less than 15,000 | $\begin{array}{r} \text { PER COW: } \\ 15,000- \\ 16,999 \end{array}$ | $\begin{array}{r} 17,000- \\ 18,999 \\ \hline \end{array}$ | $\begin{array}{r} 19,000- \\ 20,999 \\ \hline \end{array}$ | $\begin{array}{r} 21,000- \\ 22,999 \\ \hline \end{array}$ | $\begin{array}{r} 23,000 \\ \text { or more } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of farms | 26 | 25 | 23 | 20 | 18 | 25 |
| Net Worth | \$425,754 | \$578,011 | \$745,994 | \$685,163 | \$830,555 | \$1,055,383 |
| N.W. as \% of Assets | 73\% | 73\% | 81\% | 75\% | 79\% | 76\% |
| Total Tillable Acres | 401.3 | 506.3 | 563.9 | 669.2 | 715.1 | 731.7 |
| Number of Cows | 81.15 | 105.97 | 152.40 | 143.53 | 143.57 | 179.91 |
| FEED COSTS (\$ Per Cow) : |  |  |  |  |  |  |
| Corn | 169 | 312 | 165 | 265 | 229 | 231 |
| Corn silage | 132 | 142 | 172 | 137 | 154 | 223 |
| Oats | 3 | 4 | 4 | 5 | 4 | 4 |
| Barley | 3 | 11 | 8 | 7 | 6 | 3 |
| Hay equivalent | 452 | 436 | 363 | 359 | 417 | 432 |
| Pasture | 30 | 17 | 14 | 3 | 5 | 2 |
| Other feed cost | 390 | 440 | 534 | 644 | 532 | 770 |
| Total Feed Fed | \$1,179 | \$1,362 | \$1,260 | \$1,420 | \$1,347 | \$1,665 |
| LIVESTOCK COSTS (\$ Per Cow) : |  |  |  |  |  |  |
| Operator labor | 134.11 | 97.99 | 65.90 | 70.22 | 78.83 | 41.57 |
| Family Labor | 80.49 | 75.00 | 73.24 | 45.94 | 41.63 | 53.55 |
| Hired labor | 158.12 | 143.97 | 223.27 | 265.52 | 296.24 | 273.29 |
| Total Labor | 372.72 | 316.96 | 362.41 | 381.68 | 416.70 | 368.41 |
| Repairs \& vehicle maint. | 57.39 | 76.60 | 67.48 | 81.66 | 83.98 | 85.82 |
| Fuel, oil, grease | 7.11 | 7.69 | 7.19 | 6.78 | 7.24 | 7.23 |
| Depreciation | 34.88 | 41.21 | 49.05 | 44.06 | 68.11 | 80.86 |
| Interest on machines | 8.92 | 8.68 | 9.19 | 11.12 | 14.42 | 18.55 |
| Total Machinery | 108.30 | 134.18 | 132.91 | 143.62 | 173.75 | 192.46 |
| Repairs | 8.99 | 4.78 | 12.94 | 10.18 | 24.00 | 16.00 |
| Insurance | 24.28 | 27.14 | 17.56 | 23.97 | 20.46 | 19.42 |
| Depreciation | 28.74 | 25.48 | 48.47 | 56.14 | 75.79 | 91.75 |
| Interest, buildings | 18.63 | 12.75 | 18.64 | 20.17 | 21.05 | 41.53 |
| Total Buildings | 80.64 | 70.15 | 97.61 | 110.46 | 141.30 | 168.70 |
| Semen \& breeding | 12.13 | 13.58 | 17.41 | 25.73 | 37.51 | 34.95 |
| Vet., med., drugs | 55.47 | 62.98 | 94.60 | 100.34 | 91.69 | 124.32 |
| Marketing, trucking | 126.57 | 143.16 | 140.81 | 157.01 | 186.26 | 209.42 |
| Livestock supplies | 46.59 | 42.24 | 68.84 | 80.93 | 67.78 | 106.06 |
| DHIA, reg., bedding | 28.64 | 54.60 | 71.11 | 76.77 | 57.38 | 58.20 |
| Interest, livestock | 95.71 | 107.40 | 106.54 | 99.49 | 109.32 | 109.19 |
| Total Livestock | 365.11 | 423.96 | 499.31 | 540.27 | 549.94 | 642.14 |
| Land taxes | 5.80 | 4.28 | 6.53 | 5.84 | 16.01 | 10.56 |
| Interest on land | 0.86 | 0.67 | 0.67 | 0.60 | 0.68 | 0.77 |
| Land rent | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Land | 6.66 | 4.95 | 7.20 | 6.44 | 16.69 | 11.33 |
| Utilities | 70.18 | 62.61 | 53.63 | 65.14 | 72.09 | 69.75 |
| Miscellaneous | 18.72 | 12.96 | 20.24 | 17.73 | 15.71 | 17.34 |
| Total Other | 88.90 | 75.57 | 73.87 | 82.87 | 87.80 | 87.09 |

APPENDIX TABLE D.
Telfarm Crop Averages, 1995, By Mik Per Cow

|  | POUNDS SO Less than 15,000 | $\begin{array}{r} \text { PER COW } \\ 15,000- \\ 16,999 \end{array}$ | $\begin{array}{r} 17,000- \\ 18,999 \end{array}$ | $\begin{array}{r} 19,000- \\ 20,999 \end{array}$ | $\begin{array}{r} 21,000- \\ 22,999 \end{array}$ | $\begin{array}{r} 23,000 \\ \text { or more } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OWNED ACRES of crops: |  |  |  |  |  |  |
| Corn | 64 | 98 | 97 | 90 | 154 | 108 |
| Corn Silage | 29 | 45 | 69 | 44 | 60 | 81 |
| Hay Crops | 112 | 109 | 114 | 135 | 175 | 142 |
| Pasture | 39 | 29 | 22 | 11 | 10 | 8 |
| Wheat | 16 | 12 | 11 | 6 | 36 | 15 |
| Soybeans | 12 | 21 | 17 | 25 | 25 | 6 |
| Oats | 5 | 4 | 5 | 9 | 4 | 4 |
| Barley | 2 | 1 | 7 | 3 | 5 | 1 |
| YIELD PER ACRE, owned crops |  |  |  |  |  |  |
| Corn | 98.3 | 109.0 | 112.0 | 111.6 | 124.8 | 119.9 |
| Corn Silage | 10.8 | 12.9 | 17.7 | 13.6 | 15.9 | 17.3 |
| Hay Crops | 3.9 | 4.2 | 4.2 | 4.3 | 4.7 | 5.0 |
| Pasture | 2.5 | 2.3 | 3.4 | 1.2 | 3.1 | 1.3 |
| Wheat | 41.0 | 45.3 | 52.3 | 51.4 | 56.2 | 49.0 |
| CROP COSTS (\$ per acre) |  |  |  |  |  |  |
| Operator Labor | 19.96 | 15.06 | 11.88 | 13.20 | 13.49 | 8.51 |
| Family Labor | 11.98 | 11.53 | 13.21 | 8.63 | 7.12 | 10.97 |
| Hired labor | 23.53 | 22.12 | 40.26 | 49.90 | 50.68 | 55.96 |
| Total Labor | 55.47 | 48.71 | 65.35 | 71.73 | 71.29 | 75.44 |
| Repairs \& vehicle maint. | 20.33 | 29.71 | 30.10 | 28.92 | 30.60 | 30.07 |
| Fuel, oil, grease | 11.57 | 12.78 | 13.44 | 11.73 | 12.94 | 12.89 |
| Custom hire, lease | 7.54 | 4.62 | 17.16 | 15.26 | 11.32 | 15.24 |
| Depreciation | 25.27 | 31.47 | 37.05 | 33.61 | 31.14 | 48.76 |
| Interest on machines | 5.96 | 6.35 | 7.85 | 8.63 | 6.17 | 8.65 |
| Total Machinery | 70.67 | 84.93 | 105.60 | 98.15 | 92.17 | 115.61 |
| Repairs, conservation | 3.45 | 1.88 | 5.80 | 3.97 | 9.44 | 5.67 |
| Insurance | 3.39 | 4.04 | 3.19 | 4.13 | 3.20 | 2.88 |
| Lease | 0.42 | 0.94 | 3.27 | 1.65 | 0.91 | 13.19 |
| Depreciation | 4.23 | 5.23 | 5.66 | 6.78 | 7.28 | 7.16 |
| Interest, buildings | 1.99 | 2.78 | 2.50 | 2.68 | 2.83 | 3.06 |
| Total Buildings | 13.48 | 14.87 | 20.42 | 19.21 | 23.66 | 31.96 |
| Fertilzer and lime | 20.92 | 30.10 | 38.54 | 27.41 | 43.95 | 25.57 |
| Supplies, packaging | 0.67 | 1.23 | 1.12 | (0.16) | (4.11) | 1.12 |
| Seeds, plants | 11.01 | 14.50 | 18.70 | 17.50 | 13.93 | 13.44 |
| Chemicals | 12.26 | 10.03 | 15.20 | 17.71 | 20.83 | 16.93 |
| Other | 2.10 | 1.26 | 0.84 | 2.16 | 1.94 | 1.20 |
| Interest on crops | 9.24 | 10.04 | 14.05 | 11.23 | 13.66 | 13.67 |
| Total Crop Expense | 56.20 | 67.16 | 88.45 | 75.85 | 90.20 | 71.93 |
| Land taxes | 7.82 | 7.95 | 7.50 | 4.88 | 17.77 | 5.32 |
| Interest on land | 24.30 | 22.19 | 19.67 | 14.66 | 21.28 | 18.50 |
| Land rent | 9.94 | 20.73 | 31.33 | 25.75 | 17.63 | 33.52 |
| Total Land | 42.06 | 50.87 | 58.50 | 45.29 | 56.68 | 57.34 |
| Utilities | 2.13 | 1.82 | 1.64 | 2.03 | 2.16 | 2.14 |
| Miscellaneous | 2.79 | 1.99 | 3.65 | 3.33 | 2.69 | 3.55 |
| Total Other | 4.92 | 3.81 | 5.29 | 5.36 | 4.85 | 5.69 |

