

SUTTER COUNTY

DAIRY MANAGEMENT STUDY

1950



Agricultural Extension Service
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PROFITABLE DAIRY MANAGEMENT

Profitable Dairy Management hinges on two major factors:

- I. High butterfat production per cow.
 1. High producing cows.
 2. Cows milking a high percent of the time.
 3. Concentrates fed according to production so that good cows can do their best.

- II. Ample supplies of good quality feed at economical costs.
 1. Cows can usually harvest their own forage from pasture cheaper than it can be cut and hauled to them.
 2. Heavy concentrate feeding is profitable only if production is increased sufficiently to cover the cost of the feed.

Do not overlook the other factors in production and profit, however:

1. Minor items of expense can mean the difference between profit and loss.
2. Labor costs can be high unless efficient methods and equipment are used.
3. Replacement heifers must be raised economically.

The four records in this study are not a large sample of the dairy industry of Sutter County. Because of the small number of records involved, no averages have been made.

This study is conducted only on the dairy enterprise and does not include production of feed or other farming operations. Farm grown feeds are charged to the dairy at rates sufficient to cover the costs of production. The actual costs of raising these feeds is not included as a part of the dairy enterprise.

Profitable farm operations require a study of each of the various enterprises on the farm, i.e. dairy, pasture, hay, and other feed. These various enterprises must be in balance and each operating at maximum efficiency in order to make the highest profit.

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TABLE 1 PRODUCTION FACTORS AND SUMMARY OF INCOME AND EXPENSE

| Serial Numbers | Market Milk Dairies | | Manufacturing Milk Dairies | |
|-------------------------------------|---------------------|--------|----------------------------|---------|
| | 1 | 2 | 3 | 4 |
| Average Number of Cows | 31. | 230 | 19 | 31 |
| Animal Units per Cow | 1.6 | 1.6 | 1.5 | 1.4 |
| Pounds B. F. Sold per Cow | 413 | 314 | 234 | 259 |
| Percent of Butterfat Sold | 94 | 91 | - | 99 |
| Average test of Milk Sold | 3.5 | 4.6 | 4.1 | 4.1 |
| Percent of Time Cows Milking | 86 | 82 | 74 | 87 |
| Average Price per Pound Butterfat | \$ 1.13 | 1.10 | .84 | .84 |
| Net Cost per Pound Butterfat | .83 | .94 | 1.07 | 1.09 |
| Management Income | .30 | .16 | - .23 | - .25 |
| Income per Cow | | | | |
| Butterfat Sales | \$ 466.23 | 345.10 | 199.47 | 216.80 |
| Stock Sold | 40.57 | 55.62 | 45.46 | 52.68 |
| Manure and Sacks | 8.68 | 11.61 | 7.73 | 7.21 |
| Change in Stock Inventory | 177.43 | 8.74 | 4.12 | - 30.45 |
| Total | 692.91 | 421.07 | 256.78 | 246.24 |
| Cash and Depreciation Costs per Cow | | | | |
| Feed | \$ 196.16 | 195.50 | 144.35 | 166.98 |
| Hired Labor | 12.90 | 111.39 | 1.03 | - |
| Stock Bought | 41.13 | - | 16.75 | .64 |
| Miscellaneous | 61.48 | 34.36 | 23.31 | 15.25 |
| Depreciation | 16.13 | 14.48 | - | 6.57 |
| Total | 327.80 | 355.73 | 185.44 | 189.44 |
| Farm Income per Cow | \$ 365.11 | 65.34 | 71.34 | 56.80 |
| Family Labor | 197.42 | - | 112.89 | 101.54 |
| Interest | 42.58 | 15.53 | 13.31 | 19.88 |
| Management Income | 125.11 | 49.81 | - 54.86 | - 64.62 |

The Market Milk herds made a good Management Income per cow but the Manufacturing Milk herds both had a minus Management Income.

Part of this difference was due to the price received for Butterfat, but part of the difference was due to the cost of production per pound of butterfat largely due to the difference in pounds produced per cow, since the manufacturing milk dairies had a lower total cost per cow.

Animal units are used for figuring the feed requirements of different ages of stock. An animal unit is defined as one mature cow or the equivalent in feed required. The animal units per cow shown above include the bull and young stock as well as the milk cows.

TABLE 2

ANALYSIS OF FEED COSTS AND USAGE

| | Market Milk Dairies | | Manufacturing Milk Dairies | |
|-------------------------------|------------------------|--------|-------------------------------|--------|
| | 1 | 2 | 3 | 4 |
| Feed Cost per Cow | | | | |
| Hay | 80.98 | 64.62 | 58.94 | 83.89 |
| Concentrate | 58.28 | 106.60 | 3.25 | 56.17 |
| Greens | - | 8.63 | - | - |
| Pasture | 56.90 | 15.65 | 82.16 | 26.92 |
| Total | 196.16 | 195.50 | 144.35 | 166.98 |
| Feed per Cow | | | | |
| Tons Hay | 4.0 | 6.4 | 2.9 | 4.8 |
| Pounds Concentrate | 1,548 | 3,010 | 57 | 1,761 |
| Tons Green Feed | - | 1.1 | - | - |
| Animal Unit Months Pasture | 13.5 | 1.9 | 10.9 | 4.1 |
| Pounds TDN | 10,616 | 9,797 | 7,305 | 7,721 |
| Cost of Feed | | | | |
| Hay per ton | 20.00 | 10.00 | 20.24 | 17.66 |
| Concentrate per Cwt. | 3.76 | 3.54 | 5.72 | 3.25 |
| Greens per Ton | - | 5.00 | - | - |
| Pasture per Animal Unit Month | 4.20 | 8.44 | 7.55 | 6.51 |
| TDN per Cwt. | 1.85 | 2.00 | 1.98 | 2.16 |
| Percent of Cows | | | | |
| Sold | 10 | 20 | 21 | 13 |
| Died | - | 3 | 5 | 3 |
| Change | 36 | 6 | 0 | -13 |
| Hours Labor per Cow | 210 | 104 | 114 | 101 |
| Investment per Cow | \$ 852 | 311 | 266 | 398 |

Feed is one of the most important items of cost in a dairy herd. Economical feed sources are essential for profitable production.

Costs of the various feed items shown above are as reported by the dairyman except for pasture which was figured at \$40 per acre for irrigated pasture and \$20 per acre for other farm pasture.

Costs of pasture are high in these records because of the low yields obtained. The animal unit months of pasture per acre varied from 4 to 8.9. These are all lower than should be obtained from good producing well managed pastures.

Cost of feed per cwt of TDN were: hay \$1.17, greens \$1.60, pasture \$1.64, and concentrates \$4.71. This illustrates why concentrate feeding can be unprofitable if carried to extremes. TDN is Total Digestible Nutrients and is that portion of the feed which is digested and actually used by the animal.

Labor used per cow is higher than many similar studies show. Standards of production indicate that 85 hours per cow is ample under most conditions.

The high investment record No. 1 was due to a recently completed Grade "A" barn with the necessary equipment.