



FINANCIAL PERFORMANCE OF
NORTH SAN JOAQUIN VALLEY DAIRIES

by

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All dairy farmers must strive for greater efficiency. Lower milk prices and milk production quotas continue to be examined by Congress. The U.S. Department of Agriculture is currently equipped with the Dairy Collection Plan which might lower prices by \$1.00/cwt. The next few years are not going to be as profitable as the past few years.

A timely one year study of eighty-five San Joaquin Valley dairies reveals some of the keys to efficient farm management. The dairy farm data examined in this study come from the California Bureau of Milk Stabilization. The farms were located in Madera, Merced, San Joaquin and Stanislaus Counties. The time period of the analysis is February 1981 through January 1982. However, milk prices have been updated to reflect current (December 1982) levels.

Performance Standards

A computer program was used to rank dairies according to their cash flow per hundredweight (cwt.) of milk. The computer program created three averages: total group, most profitable 25% of dairies, and least profitable 25% of dairies.

The total group average shows performance figures which can be considered typical. The top 25% average serves as a goal for management improvement. The bottom 25% average may indicate certain pitfalls which should be avoided.

The Bureau of Milk Stabilization has prepared these data by applying fair market value wherever possible. Thus hay or silage grown by a dairy farmer is assigned a value based on sales prices observed by the Bureau. The same fair market value procedure applies to herd replacements. Interest expense is calculated over the value of total dairy farm assets. Therefore, interest expense includes a return on owner equity.

As part of this analysis, milk prices have been adjusted so that all dairies have 50% quota milk and 50% overbase milk sales. Also, costs have been adjusted to reflect only cash flow. This has been

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accomplished by the following modifications: (1) elimination of pasture costs, family labor costs, and depreciation, (2) a 20% reduction in herd replacement to better reflect the cost of owner-raised animals, and (3) a reduction in interest expenses by 50% to reflect the case of 50% owner equity.

Key Findings

The top 25% of dairies in this study have realized higher income per hundredweight by:

1. Achieving a higher production per cow.
2. Achieving lower feed costs as a percentage of sales receipts.
3. Employing fewer hired workers per cow.
4. Maintaining lower operating costs per cow.

On the other hand, the tighter cash flow of the bottom 25% of dairies is explained by performance difficulties in one or more of the above areas.

Costs and Income

Table 1 shows the average income and costs per hundredweight for the top 25%, the total group average, and the bottom 25%. The top group exhibits a higher milk price, lower costs, and greater cash flow.

Feed costs account for the greatest efficiency difference between the groups. The feed costs of the bottom group exceed those of the top group by a full \$1.00/cwt. The group average feed cost was \$6.94/cwt. Hired labor costs, operating costs, and interest costs account for the remaining performance differences.

Feeding

As shown in table 2, the feeding efficiency varies widely. As a percentage of receipts, the top group had feed costs equal to 50.1% versus 58.3% for the bottom group. Therefore, the bottom group has substantial opportunity for improvement. The group average for feed costs as a percentage of receipts was 54.0%.

The top group of dairies fed more concentrates per cow but spent less per ton on those concentrates. Pounds of concentrates per milk cow per day averaged 24 lbs. among the top group versus 21 lbs. among the bottom group. Concentrate cost per ton averaged \$162.22 among the top group versus \$166.94 among the bottom group.

The practice of feeding commodities refers to the mixing of a complete ration on the farm. Equipment required may include the following: bulk storage, a front-end loader, a grinder, a mixer wagon or truck, and a scale. Also, a ration formula and a commodity purchasing strategy are needed. Among the top group, 38.1% fed commodities. This contrasts with a sample average of 23.5% and a low group average of 14.3%.

Milk Production

Table 3 presents milk production and related statistics. Milk production per cow per month (all cows milking and dry) averaged 153 lbs. higher among the top group than among the bottom group. For a 364 cow herd with an F.O.B. farm milk price of \$12.84/cwt., this difference is worth \$7,150 per month. Note that the average milk production per cow was 1,317 lbs. per month.

Three times milking was used by 23.8% of the herds in the top group versus 18.8% for the total group and 9.5% for the bottom group. Three times milking probably contributes to the high production of the top group. However, as evidenced by the bottom group, three times milking is not a cash flow cure-all.

The percentage of herds milking at least some non-holstein cows was 14.3% for the top group, 14.1% for the total group, and 9.5% for the bottom group. This indicates that non-holstein cattle can be profitable.

Hired labor cost per cow per month in the top group averaged \$2.30 less than it did in the bottom group. Because the average wage paid was almost equal, this means that the top group employs fewer workers per cow. The average hired labor cost per cow per month was \$13.81.

Average herd size (milking and dry) differed greatly between the groups. The top group had an average size of 542 cows versus 410 cows for the total group and 364 cows for the bottom group. Larger herds do allow for a greater number of cows per worker and a greater specialization of workers. However, a large herd size is no guarantee of improved cash flow.

Wrap Up

The keys to improved cash flow are higher production per cow, lower feed costs as a percentage of receipts, fewer employees per cow, and lower operating costs per cow. In the future, if lower milk prices or production restraints are imposed by USDA, then improved management will be even more important than it is today.

Table 1. Blend Price, Costs, and Cash Flow per Hundredweight of Milk Production

	85 Dairies		
	Average, Top 25% (\$/cwt.)	Average, All Dairies (\$/cwt.)	Average, Bottom 25% (\$/cwt.)
Blend Price (F.O.B. Ranch)	12.95	12.86	12.84
Feed Cost	6.48	6.94	7.48
Labor Cost	0.97	1.05	1.28
Operating Cost	1.14	1.37	1.59
Interest Cost	0.99	1.08	1.21
Other Costs	<u>0.52</u>	<u>0.55</u>	<u>0.56</u>
Total Cost	10.10	10.99	12.12
Cash Flow*	2.85	1.87	0.72

*This amount includes payment for family labor, depreciation, return on equity, and pasture.

Table 3. Milk Production and Related Statistics

	85 Dairies		
	Average, Top 25%	Average, All Dairies	Average Bottom 25%
Milk per Cow per Month*	1,348 lbs.	1,317 lbs.	1,195 lbs.
Percent Using Three Times Milking	23.8%	18.8%	9.5%
Percent Milking Non-Holstein	14.3%	14.1%	9.5%
Hired Labor Cost per Cow per Month	\$13.01	\$13.81	\$15.31
Herd Size, Milking and Dry Cows	542	410	364

*All cows milking and dry. Average fat test of 3.76%.
Average solids-not-fat test of 8.75%.