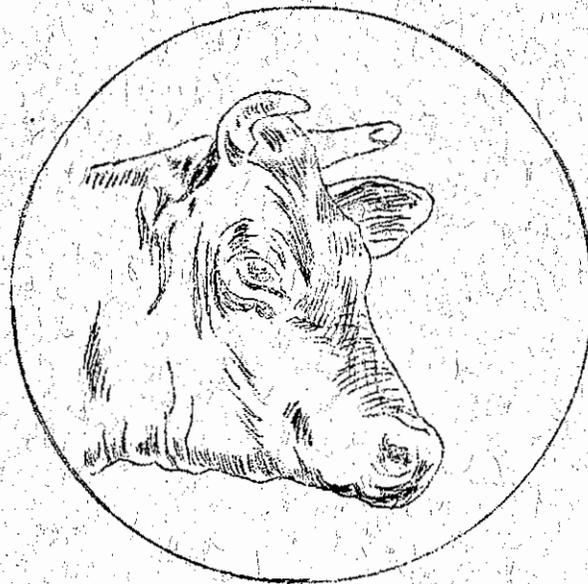


FRESNO COUNTY DAIRY MANAGEMENT STUDY

1950



Conducted
by
THE AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE
and
UNITED STATES DEPARTMENT OF AGRICULTURE

Burt B. Burlingame
Extension Specialist, Farm Management
University of California
Berkeley, California

Edward A. Yeary
Farm Advisor
Agricultural Extension Service
Fresno, California

INTRODUCTION

This is the fourth annual report of the Fresno Dairy Management Study. Records included are from eight market milk dairies and two manufacturing milk dairies. The record year covers the twelve-month period from March 1, 1950 through February 28, 1951.

Tables 1-4 compare data from this study with that from the Fresno-Madera Studies for the three previous years. Tables 5-9 present individual records in detail for those who want this information.

PURPOSE

The purpose of this study is to help dairymen manage more efficiently. Records provided by the cooperating dairymen have been analyzed in detail. Average figures shown will not be representative of all dairies. They apply only to the dairies included in this study. These figures are intended to help the cooperators analyze their dairy management practices and to see ways to increase their incomes. The averages will serve as a guide to others in estimating probable expenses and income for the dairy business.

DAIRY ENTERPRISE A PART OF THE TOTAL FARM BUSINESS

In order to understand the information in this report, it is necessary to think of the dairy enterprise as a separate part of the dairy farm business. The dairy enterprise records are carried as though the feeding and milking of cows were a separate business from feed production. Costs of growing feed do not appear as such. The farm-grown feeds are charged to the dairy at a fair price delivered to the dairy. Hence, in addition to the profit or loss shown by the dairy enterprise, there may be profits or losses from the feed-producing enterprises on these same ranches. A study of the following tables should help dairymen in evaluating practices such as feeding of concentrates, use of pasture and silage, production testing, and production of market milk or manufacturing milk. The reader should first acquaint himself with the following explanation of terms in order to properly understand the report.

EXPLANATION OF TERMS

Average number of cows is computed by dividing total cow months by twelve. Cows in the herd, both dry and milking, on the first of each month are counted for that entire month. As soon as a heifer has her first calf she is counted as a cow.

An animal unit is a mature head equivalent in feed requirement, and its use enables comparison of herds having varying proportions of dairy stock other than cows. Cows and bulls are one animal unit each; calves under 3 months are considered 0.25 animal units; calves 3 months to a year, 0.40; heifers 1 to 2 years, 0.70; and heifers over 2 years are .75 animal units per head. The average animal units in the herd are the average for the year of all stock in the herd as computed on the above basis. The animal units per cow are used to show the proportion of stock other than cows.

Total digestible nutrients (TDN) is that portion of the food used which is digested and used by the animal for maintenance, growth, and production. The amount of TDN in the various feeds used in this study are as follows: Hay--50%, grain and concentrates--75%, silage and greens--15% to 18%, and pasture--400 pounds per animal month.

Milk income is the income from milk sold plus the value of milk used in the home.

Net stock income is the difference between stock sales plus closing stock inventory, and the stock purchases plus the opening inventory of dairy stock. If the latter sum is greater, there is a net stock cost which is an expense rather than an income. Stock is inventoried at a uniform value per head for stock of the same age and quality at both the beginning and end of the record year.

Total income is composed of the net stock income, income from manure and miscellaneous items, and the income from milk sold.

Feed costs are composed of the cost of purchased feeds and the value of farm produced feeds. The latter are charged to the dairy at farm value which is about what such feeds would bring at the time put up, or market value less marketing cost. Unused feeds remaining at the end of the year are inventoried at the same value at which originally charged to the dairy. Pasture is charged at the going rental value per acre or per head month where that can be estimated or, if that cannot be determined, at cost of growing the pasture, including land rent or interest on the value of the land plus taxes.

Total expense is composed of the following items: All expenditures for feed, labor, supplies, and miscellaneous items; the value of farm produced feeds; the value of labor provided by the operator and his family; depreciation on buildings and equipment; interest on the dairy enterprise investment at 5% and the net stock cost, if any.

Management income is the difference between total income and total expense. If expense is larger, the loss is indicated by a minus sign (-). It is the amount by which income exceeds all costs of production except an allowance for management, and hence, is the residual available to reimburse management.

Labor income is the management income plus the value of the operator's and family labor. It is the amount the dairyman receives from his dairy enterprise for labor and management, and is sometimes called labor and management income.

Farm income is management income plus the value of the operator's own labor and computed interest on investment. It is the total amount the dairyman makes from his dairy enterprise for his management, labor, and invested capital.

Burt B. Burlingame
Extension Specialist in Farm Management
University of California
Berkeley, California

Edward A. Yeary
Farm Advisor
Agricultural Extension Service
Fresno, California

TABLE 1

Costs, income and earnings for the market milk dairies in this year's study showed considerable variation between individual herds as will be noted in the range which is shown in table 1. Pounds of butterfat sold per cow, for example, ranged from 282 pounds up to 375 pounds with all herds averaging 333 pounds per cow. Management income per cow showed a range of from -\$63.84 to \$100.92 with all herds averaging about \$62.

Some of the factors which affected profits are shown in this table and also in table 2 which gives an analysis of feed quantities and costs. Dairy herds in the study with high production coupled with relatively low costs were the most profitable. This relationship between production and cost is one which must be worked out by each individual dairyman depending upon the characteristics of his individual farm.

The 1950 record year for herds in this study was the least profitable of the 4 years in which this study has been conducted. Some of the lower net earnings this year can be attributed to the lower average price received for milk, but also part of it is due to the fact that the herds included in this year's study averaged somewhat lower production per cow than in any of the three previous years. The net cost of production of milk fat was slightly lower than in 1949 due mainly to the lower feed prices this past year. However, the lower average price received more than offset the reduced net cost of production.

Table 1--Summary of Costs, Income and Earnings and Related Factors
for Market Milk Dairies, 1947 - 1950

	Fresno County			Fresno and Madera		
	1950 Records		Average	1949	1948	1947
	Range			Av.	Av.	Av.
	from	to				
Number of records			8	8	11	13
Av. number of cows per dairy	21.6	97.3	52.8	71.9	51.3	57.3
Animal units per cow	1.4	1.7	1.6	1.6	1.5	1.5
Pounds of milk sold per cow	6,738	9,891	7,757	10,153	9,185	---
Per cent fat in milk	3.6	5.1	4.3	4.0	4.1	---
Pounds of milk fat sold per cow	282	375	333	406	375	351
Av. price per cwt. milk sold	\$3.45	\$4.85	\$4.17	\$4.36	\$5.15	---
Net cost of production per cwt.	2.43	4.78	3.37	3.33	3.92	---
Management income per cwt.	-.90	1.33	.80	1.03	1.23	---
Av. price per lb. milk fat sold	\$.90	\$1.05	\$.97	\$1.09	\$1.26	\$1.16
Net cost of production per lb.	.64	1.20	.78	.83	.96	.88
Management income per lb.	-.23	.30	.19	.26	.30	.28
Hours labor per cow	66	111	79	83	83	85
<u>Income per cow</u>						
Net stock income	\$23.78	\$185.03	\$81.26	\$79.35	\$53.52	\$46.62
Miscellaneous income	.18	22.26	5.72	3.33	7.36	7.36
Income from milk	273.12	315.13	323.17	442.52	473.17	406.65
Total income	307.79	489.20	410.15	525.50	534.05	460.63
<u>Costs per cow</u>						
Total feed cost	\$151.10	\$274.27	\$207.39	\$272.24	\$279.23	\$238.98
Hired labor	0	95.55	43.95	47.04	43.29	46.10
Operator's & family labor	0	101.11	31.62	34.03	32.87	27.94
Miscellaneous expenses	17.51	39.39	28.74	32.78	26.19	23.37
Deprec. on bldgs. & equipment	3.46	22.95	8.98	8.24	8.62	6.26
Interest on invest. at 5%	19.92	38.71	27.52	26.85	26.30	21.59
Total costs	262.57	453.77	348.20	421.18	421.59	264.24
Management income per cow	-63.84	100.92	61.95	104.12	112.55	96.39
Farm income per cow	41.16	204.65	121.09	155.00	171.47	145.92
Average investment per cow	\$398	\$774	\$550	\$537	\$526	\$432

TABLE 2

Table 2 presents an analysis of feed quantities and costs for the market milk dairies in this year's study, as well as for the three previous years. Since feed is the most important cost item, operators have the greatest opportunity to improve their management practices and profits in this phase of the business.

In this table it will be noted that there was considerable range in the quantities of the various feeds which were used by different dairymen in the study. Of particular interest is the range in the quantity of pasture, which ran from 1.8 animal unit months up to 8.7 animal unit months. It is generally accepted that pasture is the cheapest source of feed and, therefore, the more pasture that can be substituted for other feeds the lower will tend to be the average feed cost per cow on a given dairy. Herds in the 1950 study showed a lower average amount of pasture per cow than for any of the three previous years of the study. Part of this may have been due to the fact that the same herds were not in the study in all years. Another point is that the quantity of silage and green feed averaged considerably higher for the herds in the study in 1950 than in any of the three previous years. About 1 1/4 tons of silage or green feed would replace an animal unit month of pasturage in terms of feed value.

The net pounds of total digestible nutrients per cow ranged from about 5,700 to about 9,600, with all herds averaging approximately 7,500. Some of this difference in net TDN can be attributed to differences in production and some can be accounted for by differences in breeds, since the heavier breeds require more TDNs for body maintenance. On the average, the net TDNs per cow in this year's study was lower than for the two previous years of the study and most of this can be accounted for by the lower average production per cow for the herds in this year's study.

Feed prices in 1950 averaged somewhat lower than in the other years with the total cost per hundredweight of TDN averaging \$2.01 as compared to \$2.29 in 1949 and \$2.71 in 1948.

Table 2--Feed Quantities and Costs
for Market Milk Dairies, 1947 - 1950

	Fresno County 1950 Records			Fresno and Madera		
	Range		Average	1949	1948	1947
	from	to		Av.	Av.	Av.
<u>Quantities per cow</u>						
Tons of hay	1.5	7.6	4.4	5.7	5.1	4.6
Pounds of concentrates	1,644	3,402	2,324	2,802	2,249	2,147
Tons of silage & green feed	0	15.7	7.3	2.9	2.2	1.2
An. unit months of pasture	1.8	8.7	4.6	7.8	7.2	6.8
Total pounds TDN	7,800	12,418	10,296	11,879	10,320	9,338
TDN for stock other than cows	1,935	3,311	2,784	2,976	2,592	2,160
Net TDN - cows only	5,720	9,563	7,512	8,903	7,728	7,178
<u>Feed prices</u>						
Hay per ton	\$15.03	\$21.60	\$17.72	\$21.42	\$25.52	\$24.39
Concentrates per cwt.	2.19	3.66	3.09	3.13	3.98	4.06
Silage & green feed per ton	3.00	6.16	4.51	7.13	8.46	7.58
Pasture per An. unit mo.	2.92	6.00	5.25	5.32	5.72	4.30
Cost per cwt. TDN	1.76	2.64	2.01	2.29	2.71	
<u>Costs per cow</u>						
Hay	\$33.29	\$142.05	\$78.57	\$122.03	\$129.14	\$112.60
Concentrates	48.77	114.66	71.83	87.82	89.54	87.15
Silage & green feed	2.78	57.98	32.87	20.96	19.49	10.21
Pasture	5.26	52.21	24.12	41.43	41.06	29.02
Total feed cost	151.10	274.27	207.39	272.24	279.23	238.98

TABLE 3

Table 3 for the manufacturing milk dairies is similar to table 1 for the market milk dairies in the study. Only two manufacturing milk dairies participated in this year's study and, therefore, no average is shown since not enough records were included. The two records in the 1950 study are compared with the averages for the three previous years.

One of the dairies in this year's study showed a relatively high profit due to a fairly high milkfat production per cow and a much better average price received than the other record. Record No. 25 was the least profitable in terms of management income per cow of the two records due to the fact that labor costs were high. They were considerably higher than the averages of the three previous years' records. However, when the operator's family labor is taken into account in figuring farm income per cow, this record was higher than No. 16.

Table 3--Summary of Costs, Income and Earnings and Related Factors
for Manufacturing Milk Dairies, 1947 - 1950

	Fresno -- 1950		Fresno and Malera Co.		
	Record No. 16	Record No. 25	1949 Av.	1948 Av.	1947 Av.
Number of records			6	6	4
Av. number of cows per dairy	24.1	18.2	18.8	19.2	28.3
Animal units per cow	1.5	1.9	1.6	1.5	1.3
Pounds of milk sold per cow	8,199	9,759	6,909	7,353	--
Per cent fat in milk	4.7	3.4	4.7	4.0	--
Pounds of milk fat sold per cow	381	330	327	291	301
Av. price per cwt. milk sold	\$3.82	\$2.61	\$3.72	\$4.19	--
Net cost of production per cwt.	2.66	2.52	3.39	2.96	--
Management income per cwt.	1.16	.09	.33	1.23	--
Av. price per lb. milk fat sold	.82	.78	.79	1.06	.96
Net cost of production per lb.	.57	.75	.72	.75	.76
Management income per lb.	.25	.03	.07	.31	.20
Hours labor per cow	71	214	100	73	71
<u>Income per cow</u>					
Net stock income	\$61.00	\$215.26	\$85.11	\$91.52	\$32.45
Miscellaneous income	7.31	4.05	3.72	2.34	4.52
Income from milk	312.82	255.24	257.57	308.16	288.21
Total income	381.13	474.55	346.40	402.02	325.18
<u>Costs per cow</u>					
Total feed costs	\$160.86	\$184.42	\$191.54	\$197.29	\$168.42
Hired labor	--	8.67	5.96	.24	.44
Operator's & family labor	70.95	204.40	77.04	72.90	62.92
Miscellaneous expense	34.74	35.85	16.49	16.00	13.00
Deprec. on bldgs. & equipment	3.40	3.35	7.90	6.84	5.21
Interest on invest. at 5%	16.52	28.86	24.38	18.44	16.57
Total costs	286.47	465.55	323.51	311.71	266.56
Management income per cow	94.66	9.00	23.09	90.31	58.62
Farm income per cow	182.13	242.26	124.51	180.52	138.11
Average invest per cow	\$330	\$577	\$488	\$379	\$331

TABLE 4

Table 4 for the manufacturing milk dairies is comparable to table 2 for the market milk dairies. For a discussion of some of the various factors, please refer to table 2.

Both of the manufacturing milk dairies in this year's study showed high pasture used per cow and, as a result, showed relatively low cost per hundredweight of total digestible nutrients. Total feed cost per cow for these two dairies was lower than for the two previous years of the study and, also, somewhat lower than for most of the market milk dairies in the study this year.

Table 4--Feed Quantities and Costs
for Manufacturing Milk Dairies, 1947 - 1950

	Fresno - 1950		Fresno and Madera Co.		
	Record No. 16	Record No. 25	1949 Av.	1948 Av.	1947 Av.
<u>Quantities per cow</u>					
Tons of hay	2.6	4.2	3.3	4.1	3.9
Pounds of concentrates	1,944	2,088	2,139	956	1,052
Tons of silage & green feed	--	--	1.5	--	.8
An. unit months of pasture	12.0	13.9	10.3	10.2	8.3
Total pounds TDN	8,872	11,353	9,553	8,853	8,019
TDN for stock other than cows	2,251	4,193	3,024	2,352	1,488
Net TDN - cows only	6,621	7,160	6,529	6,501	6,531
<u>Feed prices</u>					
Hay per ton	18.97	14.10	20.97	24.82	21.20
Concentrates per cwt.	2.01	2.77	3.01	3.80	4.24
Silage & green feed per ton	--	--	6.00	--	4.48
Pasture per An. unit mo.	6.00	4.82	4.79	5.89	4.53
Cost per cwt. TDN	1.81	1.62	2.01	2.23	2.10
<u>Costs per cow</u>					
Hay	49.58	59.64	69.07	100.65	82.75
Concentrates	38.98	57.91	64.31	36.32	44.60
Silage & green feed	--	--	3.93	--	3.40
Pasture	72.30	66.87	49.23	60.32	37.67
Total feed costs	160.86	184.42	191.54	197.29	168.42

FRESNO COUNTY DAIRY MANAGEMENT STUDY--1950

Table 5--Main Profit Factors in Individual Dairies, 1950

Serial number	Size of herd*	Per cent fat in milk	Average price		Quantity sold		Net stock income	Misc. income	Milk sold	Total income	Total expense	Mgt. income	Labor income	Farm income
			Per cwt. milk	Per lb. m. fat	Lbs. milk	Lbs. m. fat								
Market Milk Dairies														
Dollars per average cow for year														
13	M	3.6	\$3.45	\$.96	9,891	355	98.10	22.26	341.34	461.70	360.78	100.92	173.92	203.43
12	L	3.7	3.88	1.05	9,303	345	69.77	6.45	361.18	437.40	339.65	97.75	103.13	137.60
19	L	4.5	4.22	.94	6,931	312	60.28	2.19	292.74	355.21	262.57	92.64	115.66	135.58
24	S	4.7	4.37	.93	8,011	375	86.64	.18	350.13	436.95	362.17	74.78	175.89	204.65
2	L	5.1	4.85	.96	6,738	342	133.80	8.62	326.87	469.29	423.44	45.85	50.28	74.48
10	S	4.8	4.31	.90	7,046	337	185.03	.48	303.69	489.20	453.77	35.43	35.43	74.14
5	M	4.8	4.70	.98	7,095	342	23.78	3.52	333.77	361.07	330.63	30.44	100.70	123.07
23	M	4.0	3.88	.97	7,045	282	32.09	2.58	273.12	307.79	371.63	-63.84	11.41	41.16
Ave. all		4.3	4.17	.97	7,757	333	81.26	5.72	323.17	410.15	348.20	61.95	93.57	121.09
Manufacturing Milk Dairies														
16	S	4.7	3.82	.82	8,199	381	61.00	7.31	312.82	381.13	286.47	94.66	165.61	182.13
25	S	3.4	2.61	.77	9,759	330	215.26	4.05	255.24	474.55	465.55	9.00	213.40	242.26

In the above table the eight market milk dairies in the study this year are shown in one group and the two manufacturing milk dairies are shown at the bottom of the table. Averages for the market milk dairies are also presented. Individual records are arranged in this table, as well as in tables 6-9, in order of decreasing management income per cow, as shown in the third from the last column.

The main profit-determining factors of production per cow, average price received, net stock income and expenses are compared in this table. Considerable variation between these various profit factors will be noted for the individual herds. Some herds received higher average prices and at the same time had lower production per cow and were not as profitable as some of the other herds with higher production and slightly lower prices. Net stock income showed considerable range but the two records with the highest net stock income were not the most profitable in the study. Each individual operator should compare his figures with others in the study as a means of determining whether there are any weak points which might be improved that would increase his profit.

FRESNO COUNTY DAIRY MANAGEMENT STUDY--1950

Table 6--Factors Influencing Milk Production and Milk Cost per Hundredweight in Individual Dairies--1950

Serial number	Lbs. of milk fat per cow		Per cent of fat sold	% of time cows in milk	Lbs. TDN cow only	Lbs. conc. per cow	Dollars per cwt. of milk sold				
	Sold	D.H.I.A. record					Total cost	Income not milk	Net cost	Average price	Mgt. Income
Market Milk Dairies											
13	355	407	87.4	80.4	9,120	2,227	3.65	1.22	2.43	3.45	1.02
12	345	360	95.9	82.1	7,897	1,644	3.65	.82	2.83	3.88	1.05
19	312	308	100.0	90.1	5,904	2,095	3.79	.90	2.89	4.22	1.33
24	375	380	98.7	89.2	5,720	1,928	4.52	1.08	3.44	4.37	.93
2	342	395	86.6	83.1	8,563	3,402	6.28	2.11	4.17	4.85	.68
10	337	379	88.9	88.0	9,525	2,282	6.44	2.63	3.81	4.31	.50
5	342	364	94.0	83.2	5,865	3,103	4.66	.39	4.27	4.70	.43
23	282	298	94.6	82.2	8,501	2,221	5.27	.49	4.78	3.88	-.90
Ave. all	333	354	93.8	84.8	7,512	2,324	4.49	1.12	3.37	4.17	.80
Manufacturing Milk Dairies											
16	381	372	100.0	85.5	6,621	1,944	3.49	.83	2.66	3.82	1.16
25	330	336	98.0	82.6	7,160	2,088	4.77	2.25	2.52	2.61	.09

In the above table, pounds of milkfat sold and produced according to the D.H.I.A. record are shown along with total feed consumption in terms of total digestible nutrients per cow only and pounds of concentrates fed per cow. The cost per hundredweight of producing milk, as well as the income and earnings, are compared for the various dairies in the study. Considerable variation in the net consumption of TDNs for cows only will be noted as well as pounds of concentrates fed per cow. High producing cows, as well as cows of the heavier breeds, require more TDNs than the lower producing cows and those of the lighter breeds.

It appears from this table that some operators may be feeding more concentrates than necessary to obtain the indicated production. No. 23 fed about the same pounds of concentrates per cow as No. 13, which had over 100 lbs. higher butterfat production. Feeding concentrates according to production for each cow is one way in which the dairyman can more efficiently utilize concentrates and also helps to avoid wastage in this higher-cost type of feed.

FRESNO COUNTY DAIRY MANAGEMENT STUDY--1950

Table 7--Expenses per Cow for Individual Dairies--1950

Serial number	Hours labor per cow			Rate per hr. hired labor	Investment per cow	Costs in dollars per average cow						Animal units per cow	Feed cost per animal unit	
	Hired	Operator	Total			Total feed cost	Labor		Misc. costs	Depreciation	Int. on invest.			Total expense
Market Milk Dairies														
13	24	73.0	73.4	1.02	\$590	211.77	.39	73.00	35.23	10.88	29.51	360.78	1.59	133.39
12	60.9	5.4	66.3	.85	690	211.80	51.79	5.38	26.54	9.57	34.47	339.65	1.69	125.35
19	44.0	23.0	67.0	1.08	398	151.10	47.56	23.02	17.51	3.46	19.92	262.57	1.56	96.66
24	.6	101.1	101.7	1.06	575	176.71	.69	101.11	35.95	18.95	28.76	362.17	1.50	117.81
2	106.2	4.4	110.6	.90	484	252.74	95.55	4.43	39.39	7.13	24.20	423.44	1.58	160.02
10	87.5	—	87.5	.90	774	274.27	78.77	—	39.06	22.96	38.71	453.77	1.60	171.13
5	—	70.3	70.3	—	448	205.73	—	70.26	24.75	7.52	22.37	330.63	1.40	146.63
23	6.3	75.2	81.5	.85	595	222.94	5.29	75.25	30.25	8.14	29.75	371.63	1.54	144.28
Av. all	47.6	31.6	79.2	.92	550	207.39	43.95	31.62	28.74	8.98	27.52	348.20	1.58	131.33
Manufacturing Milk Dairies														
16	—	71.0	71.0	—	330	160.86	—	70.95	34.74	3.40	16.52	286.47	1.47	109.51
25	9.8	204.4	214.2	.89	577	184.42	8.67	204.40	35.85	3.35	28.86	465.55	1.87	98.43

In the above table considerable variation in the labor inputs, as well as in expenses per cow, will be seen for the dairies in this year's study. Total hours of labor per cow ranged from 66 for No. 12 up to 111 for No. 2. No. 2 was next to the lowest in animal units months of pasture per cow, as will be seen in table 8, and also fed a relatively large amount of silage and green feed, which may account for some of the higher total labor requirement. This operator also showed a relatively high proportion of hired labor as compared to operator's labor.

Each cooperator in the study should compare his cost items with others as a means of finding ways in which more efficient practices might be put into effect.

FRESNO COUNTY DAIRY MANAGEMENT STUDY--1950

Table 8--Feeding Practices, Fed Prices, and Feed Costs per Cow for Individual Dairies--1950

Serial number	Pounds per cow			An.U. month pasture per cow	Total pounds TDN per cow	Feed Prices				Cost per cwt. TDN	Feed costs per cow				Total
	Hay	Conc.	Silage, green feed			Hay per ton	Conc. per cwt.	Silage per ton	Pasture per An.U.Mo.		Hay	Concentrates	Silage green feed	Pasture	
Market Milk Dairies															
13	7,018	2,227	20,356	8.7	11,940	\$17.32	\$2.19	\$4.91	\$6.00	\$1.77	\$60.79	\$48.77	\$50.00	\$52.21	\$211.77
12	11,582	1,644	8,608	6.6	11,208	15.03	3.19	6.16	4.98	1.89	87.05	52.37	39.54	32.84	211.80
19	3,083	2,095	31,333	1.8	8,607	21.60	2.61	3.70	2.92	1.76	33.29	54.57	57.98	5.26	151.10
24	9,353	1,928	1,852	4.3	8,120	17.24	3.57	3.00	5.73	2.18	80.60	68.85	2.78	24.48	176.71
2	9,312	3,402	21,176	2.4	11,344	19.18	3.37	3.50	4.78	2.23	89.32	114.66	37.06	11.70	252.74
10	14,932	2,282	--	8.1	12,418	19.03	3.66	--	6.00	2.21	142.05	83.52	--	48.70	274.27
5	6,378	3,103	--	5.7	7,800	21.16	3.35	--	6.00	2.64	67.47	103.97	--	34.29	205.73
23	15,271	2,221	3,307	3.3	11,118	17.08	3.06	3.67	5.55	2.01	130.39	68.01	6.07	18.47	222.94
Av. all	8,868	2,324	14,577	4.6	10,296	17.72	3.09	4.51	5.25	2.01	78.57	71.83	32.87	24.12	207.39
Manufacturing Milk Dairies															
16	5,228	1,914	--	12.0	8,872	18.97	2.01	--	6.00	1.81	49.58	38.98	--	72.30	160.86
25	8,462	2,088	--	13.9	11,353	14.10	2.77	--	4.82	1.62	59.64	57.91	--	66.87	184.42

An analysis of the above table will give an indication as to why some operators were more efficient in their production practices and, therefore, showed more profit. Feed constitutes the largest proportion of the total cost of production.

Cost per hundredweight of total digestible nutrients for all feed ranged from a little under \$1.80 for Nos. 13 and 19 up to \$2.64 for No. 5 in the market milk group.

Total feed costs per cow are not exactly comparable since herds with a larger proportion of young stock would tend to show higher total feed costs.

FRESNO COUNTY DAIRY MANAGEMENT STUDY--1950

Table 9--Factors Influencing Net Stock Income per Cow in Individual Dairies--1950

Serial number	% of average number of cows				Average price per head sold		Head raised per cow	Animal units per cow	% cows pure-bred	Stock income and costs per cow					
	Sold	Died	Added	Incr.	Cows	Young stock				Cows sold	Other stock sale	Inven. incr. or decr.	Cows bought	Other stock bought	Net stock income
Market Milk Dairies															
13	17.8	3.0	20.8	0.0	\$248.26	\$29.92	.50	1.59	0	\$44.20	\$12.43	\$69.44	\$27.97	\$ --	\$98.10
12	28.5	3.1	29.5	-2.1	223.77	185.64	.39	1.69	53	63.73	38.16	-9.23	--	22.89	69.77
19	45.2	4.1	76.0	26.7	216.45	20.34	1.27	1.56	2	97.88	14.64	72.15	115.42	8.97	60.28
24	0.0	0.0	13.9	13.9	--	41.27	.79	1.50	14	--	17.19	85.65	--	16.20	86.64
2	47.1	0.0	30.9	-16.2	289.89	74.93	.69	1.58	81	136.42	52.89	-55.51	--	--	133.80
10	24.0	0.0	20.6	-3.4	507.86	231.33	.51	1.60	82	121.75	68.08	-4.80	--	--	185.03
5	0.0	2.6	20.4	17.8	--	13.35	.56	1.40	53	--	5.79	60.08	26.78	15.31	23.78
23	38.7	0.0	28.4	-10.3	147.44	83.72	.75	1.54	62	57.15	67.06	-92.12	--	--	32.09
Ave. all	31.0	2.1	37.4	4.3	245.03	62.16	.77	1.58	41	75.97	33.70	12.33	31.29	9.45	81.26
Manufacturing Milk Dairies															
16	4.1	4.1	29.0	20.8	135.00	7.50	.79	1.47	0	5.50	2.49	52.91	--	--	61.00
25	27.5	0.0	60.4	32.9	279.81	97.59	1.54	1.87	23	76.87	69.71	68.68	--	--	215.26

For an explanation of net stock income, please refer to the page on "Explanation of Terms" as given in the forepart of this report.

Net stock income for those in this year's study ranged from \$23.78 for No. 5 up to about \$185 for No. 10. No. 5 sold no cows during the year but increased the size of the herd slightly, and also sold a relatively small number of young stock, which accounts for the low net stock income. No. 10, on the other hand, sold both cows and young stock at a relatively high average price and about maintained the same size of herd as at the beginning of the year. This herd had the highest percentage of pure-bred cows of any of the dairies in the study.

Although net stock income is not the main profit-determining factor, it does have a bearing on the net earnings of most of the dairies in this area where most of the replacement heifers are raised, rather than purchased. In addition to the net income derived from the raising of replacement heifers, some operators with registered cows have been able to supplement their milk income through the sale of breeding stock at favorable prices.