

DY-IR-51

1951

Shasta Dairy
Management Study

University of California
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By

A. D. Reed
Extension Economist
University of California

F. F. Smith
Farm Advisor
Shasta County
UC COOPERATIVE EXTENSION

T H I S management study covers the 1951 calendar year. In previous studies, the dairy enterprise has been separated from the feed production enterprises. This report covers the overall dairy farm operation. The result is a less accurate measure of milk production efficiency, but a more accurate portrayal of the efficiency of the dairy farm as a producing unit. Thus, a higher net income could mean more efficient milk production or cheaper feed production.

What do these records tell?

1. They indicated the minimum number of cows necessary to return a satisfactory living.
2. They show that manufacturing milk dairying can be as profitable as market milk dairying. (At 1951 milk, feed and dairy cattle prices).
3. They define "profitable dairying" as:
GOOD PRODUCTION resulting from
LIBERAL AMOUNTS OF CHEAP FEED (pasture, hay, silage)
and
CAREFULLY REGULATED AMOUNTS of EXPENSIVE FEED (concentrates).

SIZE OF HERD

and

ITS RELATION TO NET INCOME

Serial No.	No. Cows	Acres Irrig. Pasture	Farm Income		Hours Labor		Return per Hour Labor
			Per Cow	Total	Per Cow	Total	
Market Milk Dairies							
1	40	35	143.56	5,743	80	3,184	1.20
2	36	40	195.75	7,145	152	5,552	1.02
3	40	67	155.74	6,292	179	7,220	.91
4	37	6	122.03	4,515	118	4,370	.56
Av.	38	37	153.96	5,924	132	5,081	.91
Manufacturing Milk Dairies							
5	25	48	253.18	6,304	134	3,324	1.46
6	33	40	251.86	8,236	174	5,700	1.10
7	31	18	206.84	6,412	158	4,900	1.01
8	12	38	266.07	3,060	209	2,400	.95
9	20	26	108.66	2,206	167	3,400	.72
10	14	9	60.29	844	266	3,715	.01
Av.	23	30	193.00	4,248	170	3,916	.89

To the dairy farmer, the most significant figure in these records is the **TOTAL FARM INCOME**.

This is the amount of money available for _____ living expenses
 _____ repayment of debts
 _____ purchase of additional equipment
 _____ or improvements
 _____ savings

High net income per cow must be accompanied by a sufficient number of cows in order to return a satisfactory **TOTAL FARM INCOME**.

Small herds tend to use about as much total labor as larger herds. This means that small herds use more labor per cow, and give a lower return per hour of labor.

INCOME and EXPENSES

per cow

Serial No.	Income					Cash and Depreciation Costs						Farm Income	Non-Cash Costs		Management Income
	Milk Sales	Stock Sales	Misc.	Change Stock Inventory	Total	Feed	Hired Labor	Misc.	Depreciation	Stock Bo't	Total		Family Labor	In-terest	
							Market Milk Dairies								
1	406.50	29.25		136.88	572.63	131.27	7.11	104.55	15.19	170.95	429.07	143.56	72.50	54.71	16.35
2	394.12	60.62	14.72	24.52	493.98	145.47	41.71	76.04	26.79	8.22	298.23	195.75	110.41	82.86	2.48
3	547.65	56.22		69.80	673.67	306.10	33.91	102.57	16.63	58.73	517.94	155.73	144.80	22.28	-16.35
4	369.74	26.58		52.97	449.29	211.77		70.71	43.92	.86	327.26	122.03	118.11	56.07	-52.15
Ave.	431.78	43.13	3.49	72.45	550.85	199.88	20.64	89.13	25.23	62.01	396.89	153.96	111.43	54.52	-11.99
							Manufacturing Milk Dairies								
5	324.00	97.46	69.03	201.81	692.30	302.78	17.19	105.60	13.55		439.12	253.18	116.46	75.08	61.64
6	266.48	58.39	39.86	85.63	450.36	129.23		49.58	19.69		198.50	251.86	174.31	59.39	18.16
7	136.58	37.11	37.00	156.45	330.14	51.51		37.00	16.73	18.06	123.30	206.84	158.06	47.29	1.49
8	327.87	42.54		86.08	456.49	72.80		101.52	16.10		190.42	266.07	208.69	68.01	-10.63
9	286.30	175.11	98.00	29.56	588.97	178.48	106.24	135.76	33.23	26.60	480.31	108.66		94.07	14.59
10	293.62	128.72		-18.21	404.13	183.73	4.64	107.68	47.79		343.84	60.29	260.71	62.67	263.09
Ave.	250.24	81.70	20.80	101.01	469.25	147.04	19.10	76.34	21.84	7.93	272.25	193.00	140.95	63.78	-7.83

FEED COST includes only feed purchased and cash casts for crop production, such as tractor fuel. It is not the actual value of the feed used.

INTEREST COST is based on investment in land owned, livestock, and all dairy and farm buildings and equipment.

LABOR COST, both hired and family includes the production of feed as well as care at the dairy herd. Family labor is charged for at \$1 per hour.

DEPRECIATION COST applies to all dairy and farm buildings and equipment.

THE TABLE

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on the left tells how the manufacturing milk dairies were able to make more money per cow while selling less milk for less money than did the market milk dairies.

1. Greater income from stock sales.
2. Greater stock inventory increase.
3. Less expenditure for purchased stock.
4. Less expenditure for purchased feed.

TO SAY IT ANOTHER WAY:

the PROFIT was in RAISING DAIRY ANIMALS on CHEAPER FEED.

under the condition prevailing in 1951

high dairy cattle prices

high beef and veal prices

high concentrate prices

FEED CONSUMPTION and COST

Serial No.	Ave. No. Cows	Animal Units per Cow	Feed per Cow			Cost of Feed Bought		% of Hay Purchased	Acres per Cow				
			Tons Hay	Tons Silage	Lbs. conc.	Hay	Conc.		Irrig. Pasture	Range	Crop Land	Corrals Misc.	Total
						per Ton*	per Cwt.						
<u>Market Milk</u>													
1	40	1.5	3.3		1,530	20.00	4.40	33	.9		.5	.1	1.5
2	36	1.6	2.8		1,920	27.50	4.00	16	1.1	15.1	2.8	.2	19.2
3	40	1.3	3.3		4,060	32.30	4.15	100	1.7			.1	1.8
4	37	1.6	3.8		2,085	30.60	4.40	100	1.0	.4	.2	.1	1.7
Ave.	38	1.5	3.3		2,419	29.80	4.20	69	1.2	3.9	.9	.1	6.1
<u>Manufacturing Milk</u>													
5	25	1.8	2.7		4,600	27.50	4.40	100	1.9			.1	2.0
6	33	1.7	4.6	2.1	895	30.00	4.40	45	1.2	6.1	.9	1.5	9.7
7	31	1.3	2.2		294	14.15	4.40	42	.6	15.0	.3	.1	16.0
8	12	1.5	3.2		2,430	26.40	3.97	9	3.3			.2	3.5
9	20	1.7	3.7	4.5	1,390	28.80	3.90	63	1.2		1.4	.2	2.8
10	14	1.4	4.5		2,920	11.95	4.38	51	.6	.6	1.2	.2	2.6
Ave.	23	1.6	3.3	1.2	1,669	24.70	4.34	54	1.3	4.7	.6	.4	7.8

*Wide variation in hay cost due to some hay being purchased standing in field.

DAIRYING

is selling feed through dairy cattle. The more feed you put through your cattle, the higher the return, PROVIDED--that it is cheap feed.

Your cheapest feed is pasture---Make your pastures produce. Don't overstock them

Your next cheapest feed is silage---Rotate your pastures with a silage crop

Your next cheapest feed is hay---Have you enough ^{to} produce hay economically, or can you buy it cheaper

Your most expensive feed is concentrates---Profitable only when used to supplement adequate roughage, and when fed according to production. UC COOPERATIVE EXTENSION

MILK PRODUCTION and SALES

Serial No.	Lbs per Cow		Ave. Test	Value per Lb BF			Value per Cwt Milk			Investment per Cow	% Return on Investment
	Milk	B F		Price	Cost	Mgt. Income	Price	Cost	Mgt. Income		
1	8,581	314	3.7	1.29	1.24	.05	4.74	4.55	.19	\$1,094	6.5
2	8,512	316	3.7	1.25	1.24	.01	4.63	4.60	.03	1,657	5.2
3	11,538	435	3.8	1.26	1.30	.04	4.75	4.89	.14	545	2.0
4	7,296	294	4.0	1.26	1.43	.17	5.07	5.78	.71	1,121	.4
Av.	9,032	342	3.8	1.26	1.30	.04	4.78	4.91	.13	1,090	3.9
<u>Manufacturing Milk</u>											
5	8,923	328	3.7	.99	.80	.19	3.63	2.94	.69	1,502	9.1
6	7,035	288	4.1	.92	.86	.06	3.79	3.53	.26	1,188	6.5
7	3,485	140	4.0	.98	.97	.01	3.92	3.88	.04	946	5.2
8	6,964	321	4.1	1.02	1.05	.03	4.71	4.86	.15	1,360	4.2
9	7,073	327	3.9	.87	1.13	.26	4.05	5.23	1.18	1,881	5.3
10	6,810	282	4.1	1.04	1.98	.94	4.31	8.17	3.86	1,253	
Av.	6,412	249	3.9	1.00	1.09	.09	3.90	4.25	.35	1,276	4.0

Actual milk production is always somewhat higher than milk sales. Most dairies of the size in the study usually sell from 85 to 90 percent of the milk produced. The extremely low sales reported in some herds is due to feeding milk to raise greater than the average number of veal calves and replacement heifers.

The investment figures shown above include land, buildings, cattle and all equipment including haying and crop machinery. Only the present depreciated value is included on those items which are depreciable. Therefore these figures show the present worth of these dairies and not what it would cost to go into the dairy business. The wide variation in investment per cow is due to fact that some dairymen rented part of the land they were using.