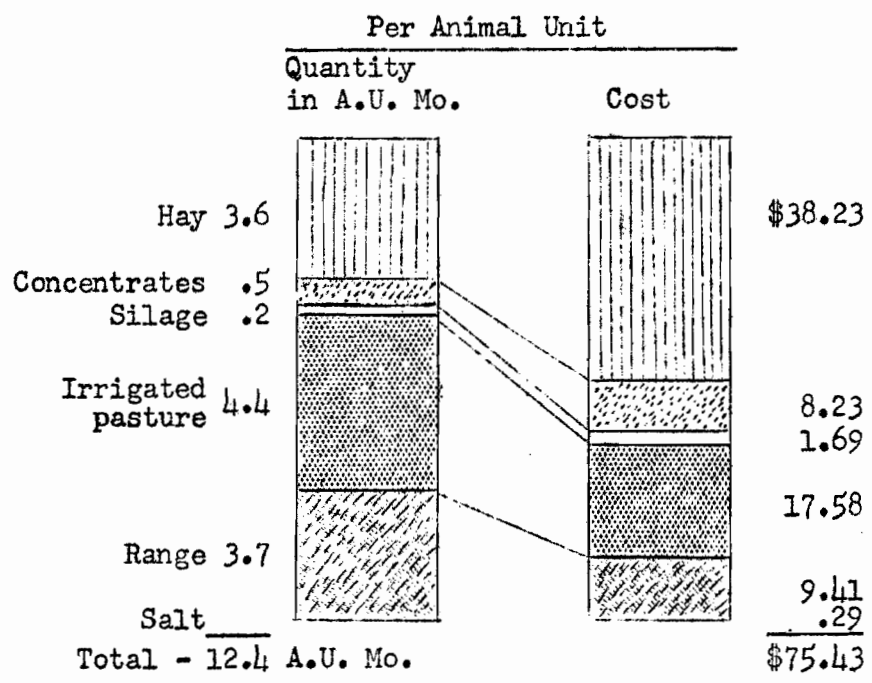


LAKE COUNTY BEEF CATTLE MANAGEMENT STUDY FOR 1953

Feed Costs were 71% of Total Costs



Hay furnished 29% of the nutrients
but accounted for 51% of the feed cost

Study Conducted by the Agricultural Extension Service
University of California, in Co-operation with
Nine Lake County Beef Producers

W. C. Lusk, Farm Advisor

Arthur Shultis, Extension Economist
Farm Management

Farm Advisors Office
Kelseyville, California

January, 1954

INTRODUCTION

This is the first annual report of the Lake County Beef Management Study. This study was undertaken by the Agricultural Extension Service in cooperation with a small group of local beef producers for the purpose of learning more about this business and to discover how profits might be improved. Records were obtained on the beef enterprise from nine growers, covering the calendar year 1953. Some of these enterprises are a small sideline to other kinds of farming. All but one included a breeding herd. Hay and irrigated pasture each contributed a larger proportion of total feed used during the year than did the natural range. Hence feed costs were high and all records showed losses.

The averages for these nine records shown in the following report should not be considered as typical of beef production in Lake County. They apply only to these nine enterprises and only for the year 1953. It is hoped that this study may continue for a few more years and hence develop information more typical of what may be expected over a few years with costs and prices more nearly in line.

EXPLANATION OF RECORDS AND TERMS

Beef Enterprise - These records cover the beef enterprise only as a part of the operator's total farm business but separate from feed production. All feeds, whether purchased or produced, are charged to beef enterprise on a quantity basis at the farm value per ton of hay and per animal unit month for range and irrigated pasture. Labor costs are only for care of the cattle and do not include labor in growing the feed. The investment per animal unit shown at the bottom of Table 2 is for the cattle and cattle buildings and equipment only and does not include range, pasture, and feed crop land.

Animal Unit - Size of enterprise is shown in average animal units in the enterprise for the year. An animal unit is a mature head of cattle over 2 years of age or its equivalent in stock of other ages. We figured calves at from 0.2 to 0.5 animal units per head, depending on age, and yearlings at .75. Animal units in each herd were calculated each month, based on the number of head and age in each group. All production and cost figures are shown in detail per average animal unit for the year.

Animal Unit Month - Pasturage is shown and figured in animal unit months. One animal unit month is the feed required for good growth or production by one animal unit for one month. It is roughly equivalent to .4 ton of hay in nutrient content and may be considered as furnishing about 400 pounds of total digestible nutrients.

Production - Net production is figured in pounds of live weight and value of animals as follows: Sales plus closing inventory less purchases and opening inventory. Its calculation is shown in Table 2 by value per animal unit.

Management Income - is the value of production less the total cost of production as shown per animal unit in Table 2. Total costs include interest on the investment in the beef enterprise and the value of the operator's own labor. This profit figure is the remainder available to reimburse management after all other costs have been met. Losses are shown by a minus sign (-).

Farm Income - is the management income plus the operator's labor and interest on investment. It is the amount available from the beef enterprise to reimburse the operator for his labor, management, and invested capital. Or it is profit as figured when operator's labor and interest on investment are not included in expenses. This figure as shown in this report applies only to the beef enterprise and does not include profit or loss in feed producing enterprises, such as range, hay and irrigated pasture. Total net farm income from all these enterprises together is not available.

Table 1 - General Summary of Lake County 1953 Beef Enterprise Records

	6	7	10	9	5	4	3	2	8	Average
Average number of animal units	64.5	12.3	41.8	22.6	115.4	49.3	64.2	31.2	56.8	458.1
Cows per average animal unit	.56	.57	.48	---	.80	.67	.58	.58	.58	.63
Animal units per cow	1.8	1.8	2.1	---	1.3	1.5	1.7	1.7	1.7	1.6
Calves raised per cow, start year	.89	.86	1.05	---	.75	.59	.59	.94	.54	.78
Pounds produced per cow	750.	679.	765.	---	335.	539.	591.	775.	531.	540.
Pounds produced per animal unit	419.	386.	366.	641.	267.	361.	341.	447.	309.	357.
Main age and kind sold	Yr. St.	none	Calves	S-2 yr.	Calves	Calves	Yr. St.	Yr. St.	Calves	Calves
Price received per cwt.	19.50	"	16.48	17.21	14.14	16.23	22.89	15.75	17.86	15.44
Average price per cwt. all sales	18.38	----	15.84	17.01	12.76	16.46	19.48	14.58	18.30	16.50
Value per cwt. produced	17.18	13.26	13.78	12.12	11.87	11.69	17.18	15.53	14.28	14.25
Total cost per cwt. produced	22.59	23.71	26.97	20.02	33.18	28.23	36.11	31.11	38.74	29.68
Management income per cwt.	-5.41	-10.45	-13.19	-7.90	-21.31	-16.54	-18.93	-15.58	-24.46	-15.43
All production costs per cow	169.49	160.88	206.38	---	111.30	152.07	213.50	241.27	205.92	165.40
Value of production per cow	128.91	90.00	105.47	---	39.82	62.98	101.56	120.48	75.99	78.10
Management income per cow	-40.58	-70.88	-100.91	---	-71.48	-89.09	-111.94	-120.79	-129.93	-87.30
Farm income per cow	-9.95	-31.77	-57.19	---	-52.29	-65.07	-68.25	-84.23	-97.61	-57.77

The 9 individual records are listed above in order of management income per animal unit which appears in Table 2. Record No. 6 covered feeder stock only, so has no figures on a cow basis. The averages per cow appearing in the last column above apply only to the 8 records having cows.

The calves raised per breeding cow on hand at the start of the calendar year is not a true calving per cent, since it applies only to the calves raised during the calendar year, a part of the season's calf crop already being on hand at the start of the year. Calf crop should be figured by dividing the total season's calves raised by the number of cows bred for that calf crop. That information was not available since these records started January 1, 1953.

The value per hundred weight produced is calculated with purchases, sales and opening and closing inventories. With some sales, particularly cows, at less than opening inventory values involving a book loss, the value per 100 lbs. produced is below sales prices in most herds

Table 2. Income, Costs and Net Income per Animal Unit.

	6	7	10	9	5	4	3	2	8	Average
INCOME per animal unit										
Bulls sold	2.00	---	4.82	---	1.59	3.08	---	---	34.83	5.77
Cows sold	4.65	---	5.86	---	22.23	8.57	12.00	8.01	22.45	12.72
Calves sold	---	---	40.58	---	28.58	19.02	---	---	19.45	15.36
Yearling heifers sold	9.23	---	---	---	.78	---	10.83	6.73	22.72	6.29
Yearling steers sold	74.68	---	10.87	10.95	1.17	33.11	45.95	24.73	---	24.03
2-year-old steers sold	---	---	---	159.91	---	---	---	---	29.58	11.56
Total sales per animal unit	90.56	---	62.13	170.86	54.35	63.78	68.78	39.47	129.03	75.73
Plus an increase stock inventory or less a decrease stock inventory	---	---	---	60.95	---	16.41	---	62.37	---	---
Less cost of stock bought	12.64	51.22	6.10	---	19.13	---	10.25	---	66.44	6.44
Net value of production per animal unit	5.97	---	5.56	154.15	3.47	38.03	---	32.33	18.44	18.41
Net value of production per animal unit	71.95	51.22	50.47	77.66	31.75	42.16	58.53	69.51	44.15	50.88
EXPENSES										
Total feed costs or value	69.21	57.65	66.93	76.30	64.56	73.70	81.78	109.65	89.89	75.43
Hired labor	---	.73	.23	---	.99	---	1.13	1.24	---	.53
Operator's labor	5.19	9.76	11.42	13.34	5.48	4.08	12.46	9.50	7.51	7.84
Horse, auto and truck costs	1.77	4.07	4.67	6.86	1.05	2.03	3.74	2.24	2.11	2.55
Miscellaneous expenses, taxes, etc.	4.59	4.82	4.33	15.78	5.27	6.13	6.34	3.85	7.19	5.98
Depreciation buildings and equipment	1.94	2.03	1.67	2.66	1.56	3.86	4.87	1.12	1.67	2.38
Interest on investment, 5%	11.90	12.50	9.50	13.36	9.82	12.00	12.72	11.60	11.26	11.27
Total costs per animal unit	94.60	91.56	98.75	128.30	88.73	101.80	123.04	139.20	119.63	105.98
Management income per animal unit	-22.65	-40.34	-48.28	-50.64	-56.98	-59.64	-64.51	-69.69	-75.48	-55.10
Add operator's labor	5.19	9.76	11.42	13.34	5.48	4.08	12.46	9.50	7.51	7.84
Add interest on investment	11.90	12.50	9.50	13.36	9.82	12.00	12.72	11.60	11.26	11.27
Farm income per animal unit	-5.56	-18.08	-27.36	-23.94	-41.68	-43.56	-39.33	-48.59	-56.71	-35.99
Average investment per animal unit beef enterprise only	238.05	250.00	189.89	267.25	196.49	240.05	254.42	231.92	225.22	225.45

All nine records showed a loss as indicated by a minus sign in front of the management income and farm income. They are arranged above in order of increasing loss per animal unit with No. 6 first as the least unprofitable enterprise. It appears from above that feed costs are too high for a profit to be available at any where near current prices for cattle. Nos 6 and 9 with value produced slightly above feed cost have what appears to offer the best chance for a profit next year.

Table 3. Feed Quantities, Prices and Costs per Animal Unit

	6	7	10	9	5	4	3	2	8	Average
QUANTITIES, per Animal Unit										
Tons of hay	1.64	.65	1.00	2.00	1.47	1.51	1.12	2.37	1.07	1.42
Pounds of concentrates	9.	---	---	---	89.	---	493.	112.	1219.	252.
All feeds in animal unit months										
Hay	4.1	1.6	2.5	5.1	3.7	3.7	2.8	5.9	2.7	3.6
Concentrates	---	---	---	---	.2	---	.9	.2	2.3	.5
Silage	---	---	---	---	---	---	1.2	1.0	---	.2
Irrigated pasture	4.2	4.3	7.6	5.0	.7	6.7	3.7	7.7	6.5	4.4
Range	4.6	6.0	3.3	4.3	5.9	1.5	4.2	.7	.7	3.7
Total A.U. Mo.	12.9	11.9	13.4	14.4	10.5	11.9	12.8	15.5	12.2	12.4
PRICES of Feed										
Hay, per ton	26.13	31.25	27.14	22.02	28.87	28.35	25.00	26.65	25.75	26.84
Concentrates, per cwt.	1.25	---	---	---	4.26	---	4.12	2.64	2.79	3.27
Silage, per ton	---	---	---	---	---	---	6.00	7.66	---	6.49
Irrigated pasture, per A.U. Mo.	3.50	5.00	4.00	4.00	4.56	4.00	4.00	4.15	4.00	4.00
Range, per A.U. Mo.	2.50	2.50	2.86	2.69	2.46	2.60	2.50	4.25	2.50	2.54
Cost per 400 lbs. TON - feed equivalent to one A.U. Mo.										
In hay	10.45	12.50	10.86	8.80	11.55	11.36	10.00	10.65	10.31	10.74
In concentrates	7.50	---	---	---	23.03	---	22.10	13.21	14.84	17.46
In silage	---	---	---	---	---	---	6.72	8.65	---	7.29
In all feeds and pastures	5.38	4.82	4.99	5.31	6.15	6.17	6.37	7.07	7.37	6.10
Feed Costs per Animal Unit										
Hay	42.95	20.33	27.27	44.00	42.53	42.85	28.04	63.17	27.60	38.23
Concentrates	.12	---	---	---	3.79	---	20.31	2.96	33.97	8.23
Silage	---	---	---	---	---	---	7.85	8.60	---	1.69
Irrigated pasture	14.54	21.54	30.48	20.19	3.28	26.77	14.83	32.05	25.85	17.58
Range	11.43	15.04	9.06	11.65	14.59	3.85	10.59	2.73	1.94	9.41
Salt and minerals	.17	.74	.12	.46	.37	.23	.16	.14	.53	.29
Total feed cost per A.U. for yr.	69.21	57.65	66.93	76.30	64.56	73.70	81.78	109.65	89.89	75.43
FEED COST per 100 lbs. of live animals produced										
	16.53	14.93	18.28	11.91	24.12	20.44	24.00	24.51	29.11	21.13

Since average feed costs were 71% of the total cost we show the detail above. More range and less of the more expensive feeds will help reduce feed cost per animal unit month and for the year. For the average both irrigated pasture and hay furnished a larger proportion of the feed than range.