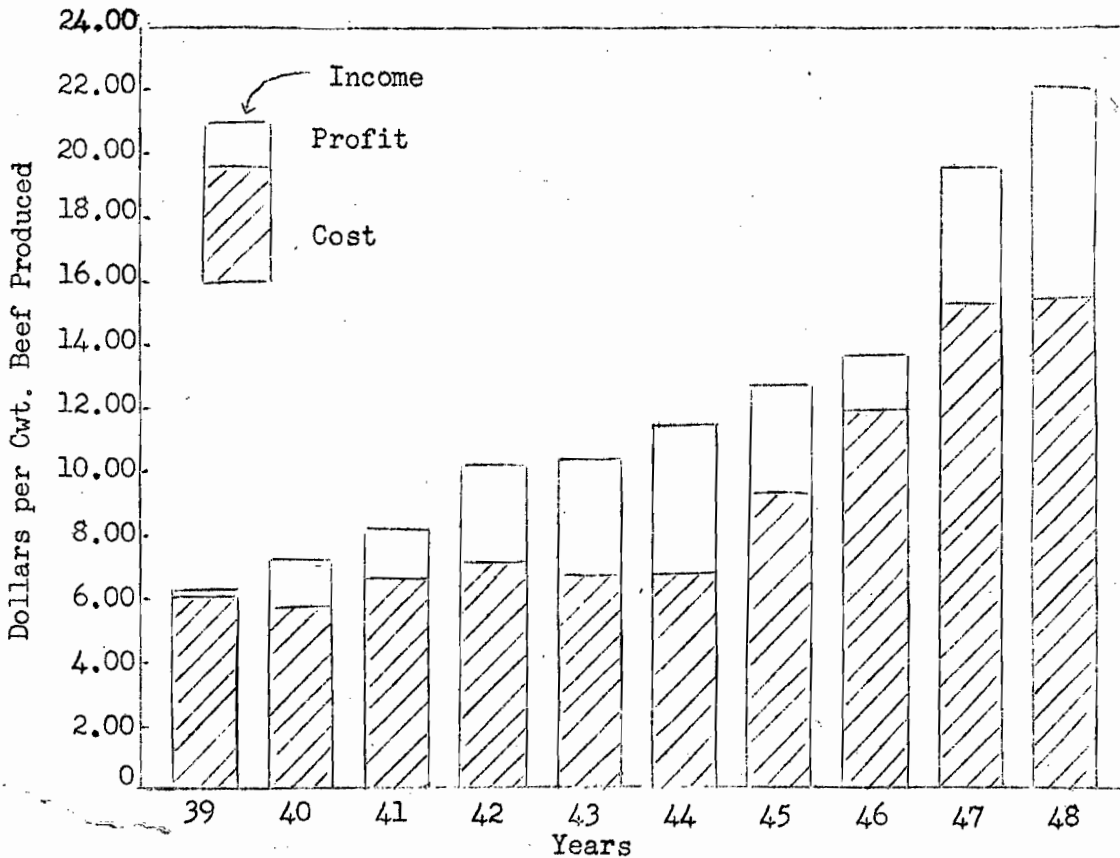


A. D. Reed

FOURTEENTH ANNUAL REPORT
LASSEN COUNTY BEEF MANAGEMENT STUDY

1948

Income, Expense, and Profit per Cwt. Beef
Produced 1939 - 48



AGRICULTURAL EXTENSION SERVICE
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Introduction

fifteenth

This is the ~~fourteenth~~ ^{fifteenth} annual report of the Lassen Beef Management Study covering the period April 1, 1948 ⁴⁹ to March 31, 1949. This study is conducted by the Agricultural Extension Service in cooperation with a group of local ranchers for the purpose of ~~disclosing current management practices~~ ^{determining the most profitable} and to help the ranchers develop ~~more profitable operations and to make adjustments to meet changing economic conditions.~~ ^{and technical conditions.}

The figures presented in this report are not represented as being averages for the beef industry ^{in Lassen County but they are}. They apply only to the ranches involved and the period covered. ~~The figures should be typical of similar beef enterprises, however.~~ ^{in operation there.}

Beef Enterprise a Part of Ranch Business

To understand and apply these figures properly, you must think of the beef cattle herd as a separate enterprise from the rest of the ranching business. The figures herein apply only to the beef enterprise, which is only a part of the total ranch business. These ranches are mainly beef ranches and, in all cases, involve the ownership of range or meadow pastures and the production of hay and sometimes other enterprises. But hay and pasture in these records are considered as produced in other enterprises and are charged to the beef cattle as hay and pasture at the going local value for such feed. Hence, these beef enterprise records show costs for the beef only, including the value of hay and pasture in the feed costs. The labor shown is only for the care and feeding of the beef herd. Much of the work of these ranches is in the production of hay, which is not shown directly, although the price at which the hay is charged to the stock should cover hay labor as well as other haying expenses and perhaps a profit on this enterprise.

Animal Unit the Basis of Comparison

Beef herds vary in the proportion of cows and young stock, so to compare feed quantities, costs, production, etc., we use an animal unit, which is one mature beef animal or its equivalent in feed consumption. The following animal unit values were used in this study:

Bulls over 2-----	1.0
Cows-----	1.0
Calves-----	.5
1-2 years-----	.75
Over 2 years-----	1.0

Cattle Ranching in Lassen County
Nature of the Local Beef Business

in Lassen County

~~For the benefit of other than local readers, we give this brief explanation of the kind of business covered by these records.~~ Cattle ranching here is the production of beef by grazing cattle in the grazing district (public domain), national forests, and privately owned and rented land. Rainfall is low and winters are severe and necessitate the feeding of about a ton of hay per animal unit. Hay for winter feeding is produced locally in irrigated hay meadows and alfalfa fields. Grazing on the public lands is regulated by permits granted to local ranchers on a scale commensurate with the feed-producing capacity of their ranches. The usual feed cycle is grazing district or private grazing land in the spring (April and May), national forest in the summer (June to September), home ranches

on hay aftermath October to December, and on hay on the home ranch January to March. Some ranchers use no national forest or grazing district lands and some have irrigated meadow summer pastures for part or all of their cattle, but the above cycle is typical of most of the producers. The provision of adequate feed throughout the year by utilization in succession of most economical sources at each season is the essential to profitable cattle ranching in Lassen County.

Explanation of Values

The number of breeding cows is the number available to calve during the year and was figured as the number on hand at the beginning of the record year, ~~plus any additions during the first few months.~~

The number of animal units was determined by averaging the number on hand at the beginning of each month.

Mortality is based on the number of animal units.

Miscellaneous income consisted^s of milk used in the home.

Family labor was valued at 75 cents per hour. Hired labor averaged ⁶⁵~~74~~ cents per hour.

Horses were figured at \$50 each for the year, based on the number considered necessary to care for the number of cattle in the record. ~~(One record used 75 for the year.)~~

The management income is the total income minus the total expense. It is a measure of the profit going to the operator for his management.

Farm income is the return to the operator from the enterprise for his labor, investment, and management. It is obtained in these records by adding the value of family labor and interest on investment to the management income.

All but one cooperator sold less beef than was produced during the year, resulting in large inventory increases in most of the records. Comparable values were used for the beginning and ending inventories, so the increase in value reflects larger numbers and weights of cattle. Inventory values were somewhat below actual market values, so the increase in inventory value does not fully reflect the market values of the increased beef on hand.

Feed averaged 67 percent of the total expense, the highest in the last ten years. The severe winter of 1948-49 accounted for the higher feed cost during this record year.

Table 1. Production Factors and Summary of Income and Expense for Cooperators in the 1948 Lassen Beef Management Study. Records Arranged in order of Management Income per Animal Unit.

	7	3	10	9	6	2	1	4	8	Ave.
Number breeding cows	126	389	64	133	296	124	106	363	68	183
Average animal units	202	492	124	204	442	187	130	679	89	283
Animal units per cow	1.6	1.3	1.9	1.5	1.5	1.5	1.2	1.9	1.3	1.5
Pounds produced per A. U.	441	435	375	512	317	501	297	296	327	375
Pounds sold per A. U.	427	349	335	189	341	325	295	254	294	309
Percent calf crop raised	94.5	81.5	90.6	94.0	93.2	92.0	86.8	70.5	92.6	86.2
Percent mortality all stock	.5	1.8	1.6	1.5	.9	5.4	0	4.0	4.5	2.4
Average value per cwt. produced	20.91	21.35	24.93	21.51	23.00	20.43	23.37	22.69	21.05	22.00
Net cost per cwt.	11.95	12.93	15.56	14.98	15.31	16.13	17.00	18.79	21.94	15.48
Management income per cwt.	8.96	8.42	9.37	6.53	7.69	4.30	6.37	3.90	-.89	6.42
Income per Animal Unit										
Stock sales	90.21	73.99	73.01	44.52	79.54	68.45	67.87	57.04	69.51	68.45
Misc.	---	---	.12	---	---	---	---	---	1.35	.05
Change stock inventory	1.97	18.90	20.55	69.97	- 5.24	33.95	1.65	17.39	-.68	16.67
Total income	92.18	92.89	93.68	114.49	74.30	102.40	69.52	74.43	70.18	85.17
Expense per animal unit										
Feed	39.41	38.40	42.23	51.45	29.10	58.24	32.60	41.67	57.96	40.81
Labor	2.17	5.64	3.32	7.84	7.06	9.45	5.57	4.20	1.84	5.44
Horse	.82	.41	.81	.98	.35	.54	.77	.44	.84	.55
Auto and truck	.28	.23	.81	1.95	1.56	1.64	1.04	.20	.57	.78
Misc.	.90	2.23	1.76	3.07	2.42	2.33	2.12	1.49	2.28	2.00
Depreciation	1.39	.97	2.02	1.86	.99	.54	1.50	.43	2.08	1.02
Interest	7.73	8.37	7.57	9.52	7.07	8.13	6.86	7.14	7.53	7.55
Stock purchased	---	---	---	4.41	1.36	---	---	7.32	---	2.54
Total expense	52.70	56.25	58.52	81.08	49.91	80.87	50.56	62.89	73.10	60.69
Management income per A. U.	39.48	36.64	35.16	33.41	24.39	21.53	18.96	11.54	- 2.92	24.48
Farm expense per A. U.	49.38	46.23	46.05	47.97	36.66	35.49	29.06	20.01	6.45	34.92

Table 2. Analysis of Stock Sales for Cooperators in the 1948 Lassen County Beef Management Study
Records Arranged in Order of Management Income per Animal Unit.

	7	3	10	9	6	2	1	4	8	Ave.
Stock sales per animal unit										
Bulls		1.18		12.55	2.69			.89		1.93
Cows	12.72	22.65		13.25	3.20	30.32	9.85	16.59		14.14
Calves	48.06	6.59		11.27	28.40	28.83	51.78		69.51	18.10
Heifers 1-2		.22	73.01	6.37	10.07		6.24			6.11
Steers 1-2	29.43	43.35		1.08	34.61	9.30		37.06		27.40
Steers over 2					.57			2.50*		.77
Total sales	90.21	73.99	73.01	44.52	79.54	68.45	67.87	57.04	69.51	68.45
Average price per cwt.										
Bulls		20.00		30.90	21.20			20.00		24.61
Cows	12.52	17.38		18.17	12.40	17.69	17.29	18.80		17.14
Calves	24.03	20.23		25.93	25.60	24.64	25.00		23.62	24.37
Heifers 1-2		20.00	21.76	23.43	24.40		20.37			22.54
Steers 1-2	23.51	24.25		21.00	23.20	25.23		23.04		23.52
Steers over 2										
Average	21.14	22.21	21.76	23.52	23.30	20.70	23.03	22.47	23.62	22.18
Ave. weight per animal sold										
Bulls		1450		1657	1394			1645		1542
Cows	979	1051		1144	945	1144	929	894		1001
Calves	526	276		444	345	533	380		415	401
Heifers 1-2		550	850	792	552		999			743
Steers 1-2	905	779		1053	775	985		1060		879
Steers over 2					1,000					

*Down payment on cattle not taken by purchaser.

Record No. 9 sold breeding bulls, thus making large bull sales per animal unit and also accounts for the high price received per cwt.

The most profitable class of cattle to sell will depend on the current price relationships between the various classes, the feed situation, the percent calf crop, and the weight of the cattle. The major decision is whether to sell calves or yearlings. For the records in this year's study, there is no relation between the kind of cattle sold and the profitableness of the enterprise.

Table 3. Analysis of Feed Cost and Feed Used and Investment per Animal Unit for cooperators in the 1948 Lassen County Beef Management Study.

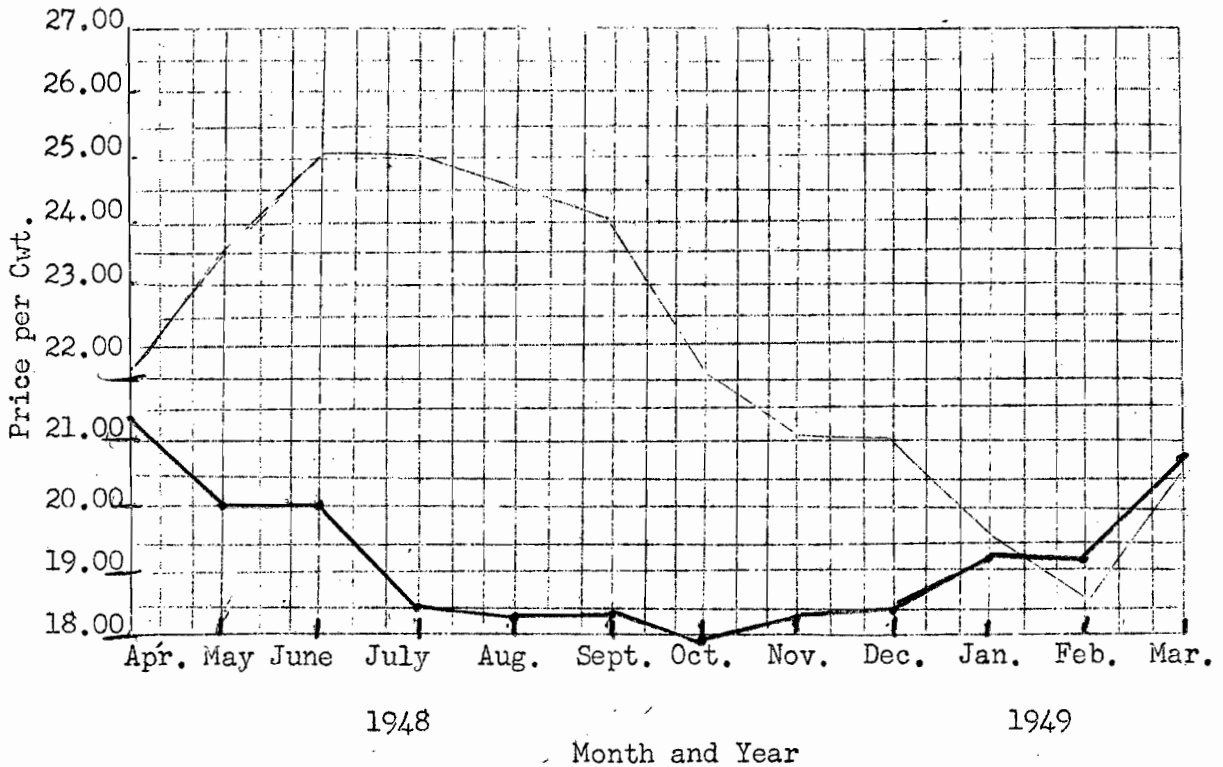
	7	3	10	9	6	2	1	4	8	Ave.
Feed cost per animal unit										
National Forest	1.93	.02	.86	.47	.59	-	.89	.51	-	.44
Grazing district		.03	-	.56	.04	.17	.27	.20	-	.22
Other rented pasture		.16	-	2.67	1.22	4.22	.76	.30	.56	.88
Owned range	4.68	5.88	1.45	4.10	3.02	3.55	5.77	5.22	6.16	4.92
Aftermath pasture	2.00	.92	7.39	4.07	1.45	.64	1.71	--	3.58	1.25
Total pasture	8.61	7.01	10.20	11.87	6.32	8.58	9.40	6.23	10.30	7.71
Hay	23.52	30.85	30.56	33.30	17.95	45.05	19.07	35.18	46.17	30.34
Concentrate	7.13	.04	1.47	5.89	4.68	4.11	3.99	.20	1.25	2.53
Salt and minerals	.15	.50	--	.39	.15	.50	.14	.06	.24	.23
Total cost	39.41	38.40	42.23	51.45	29.10	58.24	32.60	41.67	57.96	40.81
Feed Used per Animal Unit										
Acres owned range	13.3	9.5	21.8	13.1	4.6	5.4	17.9	5.3	11.0	8.6
Acres aftermath	1.1	1.6	1.0	1.8	1.4	1.9	1.1	--	2.8	1.1
Pounds hay	2352	3085	2522	3941	1802	5774	1743	3518	4617	3143
Pounds concentrates	187	1	3	249	142	203	105	4	30	82
Hours labor per Animal Unit	2.9	7.5	4.4	11.1	9.4	12.6	8.1	5.6	2.5	7.3
Investment per animal unit										
Land in lots and corrals	.49	.41	.40	.98	.54	.54	.31	1.18	2.25	.76
Buildings and improvements	14.82	10.87	17.18	15.93	11.30	4.87	12.62	3.92	19.43	10.07
Equipment for beef	1.24	2.13	2.83	1.90	1.16	1.74	2.27	1.14	2.25	1.62
Feed on hand April 1	4.14	16.18	2.06	11.65	3.59	8.31	8.20	6.95	8.58	8.29
Cattle	133.97	137.69	128.93	159.97	124.73	147.07	113.86	129.68	118.02	130.26
Total beef investment	154.66	167.28	151.40	190.43	141.32	162.53	137.26	142.87	150.53	151.00

Feed is the most important item of expense in a beef herd. Hay is the largest item of this cost. The amount of hay fed is influenced by the weather, more than normal being required in 1948 as a result of the winter of 1948-49, and the number of cattle carried over the winter. Experience in this county has shown it is less economical to winter older steers than to sell as calves or yearlings. Pasture is the cheapest source of feed available and a successful ranch operation depends on maximum use of pasture for feed. Pasture costs were figured as the actual rent paid or for owned range was the taxes plus interest on investment.

FIGURE 1. AVERAGE PRICES RECEIVED BY CALIFORNIA PRODUCERS FOR BEEF

April, 1948 to March, 1949

Source: Agricultural Prices



The average price received by the cooperators for each class of cattle reflects time of sale and the condition, age, and weight of the animals sold. Some cooperators made one sale during the year, others had the sales strung throughout the year. The above figure shows the advantage gained by those who were able to sell early in the record year. Producers could take advantage of these high prices only if they had sufficient cattle to utilize their summer pasture, however. Conditions since March, 1949 indicate prices are not likely to go as high in 1949 as they did in the spring of 1948.

1940-49
1939-48

Table 4. Summary of Lassen County Beef Management Study

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	10 Yr. Ave. 1949	10 Yr. Av.	
Number records	11	12	13	9	7	6	6	7	9	9	9	8	9
Average number cows	953	210	302	233	283	288	280	237	190	183	256	216	242
Animal units per cow	1.9	1.8	2.0	1.9	1.9	1.7	1.6	1.6	1.5	1.5	1.7	1.5	1.7
Percent calf crop raised	72	78	81	86	85	86	83	81	85	85	82	81	83
Percent mortality	1.3	1.9	1.1	1.4	1.9	2.1	1.1	2.5	1.4	2.4	1.7	2.8	1.9
Pounds produced per A.U.	276	304	298	305	313	316	307	306	339	375	314	288	315
Pounds sold per A.U.	278	271	268	295	276	361	367	301	365	309	309	341	317
Ave. price per cwt. sold	6.48	7.52	8.80	10.09	11.56	11.42	12.29	13.96	18.75	22.18	12.30	18.25	13.48
Av. value per cwt. produced	6.23	7.15	8.26	10.26	10.46	11.48	12.75	13.72	19.47	22.00	12.18	19.51	13.51
Net cost per cwt.	6.11	5.77	6.71	7.14	6.77	6.80	9.27	11.99	15.25	15.48	9.13	18.24	10.34
Management income	.12	1.33	1.55	3.12	3.69	4.68	3.48	1.73	4.25	6.52	3.05	1.27	3.17
Pounds hay per A.U.	1767	2183	2513	2029	1905	1607	1985	2097	2600	3143	2182	2201	2,263
Concentrates per A.U.	56	34	28	64	30	30	37	62	96	82	52	149	61
Hours labor per A.U.	6.8	8.2	6.0	7.4	5.8	4.8	4.5	4.6	7.3	7.3	6.3	6.7	6.3
Ave. value hay per ton	6.06	6.08	7.00	9.68	10.10	11.14	13.42	16.40	18.90	19.31	11.81	20.8	13.20
Cost concentrates per cwt.	1.96	1.64	1.91	1.73	2.41	2.80	3.00	3.09	4.07	3.08	2.87	3.31	2.70
Cost hired labor per hour	.29	.29	.30	.32	.37	.48	.74	.78	.73	.74	.50	.65	.55
Cost per animal unit													
Feed	11.00	11.09	13.61	14.52	14.26	14.02	19.30	24.98	35.00	40.81	19.86	35.76	22.33
Labor	2.05	2.45	2.09	2.84	2.50	2.77	3.37	3.58	5.34	5.44	3.24	4.73	3.51
Horses	.41	.39	.42	.43	.34	.48	.61	.50	.62	.55	.48	.56	.49
Auto	.24	.28	.24	.19	.27	.25	.21	.51	.81	.78	.38	.83	.44
Misc.	.46	.74	.61	.61	.64	.68	1.32	1.43	2.03	2.00	1.05	2.27	1.23
Depreciation	.41	.46	.37	.41	.38	.46	.58	.77	.99	1.02	.58	.94	.64
Interest	2.30	2.27	2.72	2.79	2.80	2.90	3.10	4.92	7.13	7.55	3.85	7.44	4.37
Stock purchased	.76	1.26	1.54	1.72	1.96	1.78	3.83	1.24	2.59	2.54	1.92	3.80	2.23
Total cost	17.63	18.94	21.60	23.51	23.15	23.34	32.32	37.93	54.51	60.69	31.36	56.38	35.24

The pounds produced per animal unit, one of the most important production factors, has shown a decided upward trend over the years as cooperators have increased their efficiency of production and improved their management practices. The number of animal units per cow have decreased, indicating sales at younger ages. The amount of feed and labor used have varied from year to year, depending on weather and other conditions. All items of cost have increased during recent years and with the cost of concentrates being the only item showing a significant drop in 1948. Indications are that all prices, including beef, may be lower in 1949.