

EXPERIMENT STATION
OF THE
KANSAS STATE AGRICULTURAL COLLEGE,
MANHATTAN.

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FARM DEPARTMENT.

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EXPERIMENTS IN FEEDING STEERS.—II.

We have, during the winter of 1892-'93, again fed several lots of steers, the records of which are given in detail in what follows. The steers were bought November 26, at the Kansas City stock yards. Many attempts were made to obtain a suitable lot of steers in Kansas, but without success. Feeders who had steers of suitable age and size refused to sell them at anything like a reasonable price, and we were therefore compelled to go to the yards for them. The aim was to get a fair grade of native steers, which could represent the character of the majority of steers which are raised and fed in the West. The lot fed the year previous were grade Shorthorns, and as it was contemplated to follow the same line of feeding which was adopted with them, it was desirable that these also should be grade Shorthorns. Suitable steers were not plentiful at the yards. We succeeded, however, in finding a lot which had been raised near Knobnoster, Mo., and which were of fairly equal quality, a condition which is essential in a comparative test. They were fall calves, as was learned from a man who knew their history,

and were about three years old at the time they were sold to us. They were thus about six months younger than the steers fed the previous year, and reported upon in Bulletin No. 34. They were also proportionally lighter. The previous year's lot averaged 1,200 pounds at the time they were purchased, and these averaged only 1,038 pounds when purchased in the yards.

The lot, when purchased, consisted of 20 steers, but, owing to a disease in one of them, which necessitated a surgical operation, it became impracticable to retain him in the experiment. He was therefore rejected a few weeks after the experiment began, and as he could not be replaced the experiment went forward with only 19 steers, and in the account of cost, commission, feed, etc., which follows, the cost of the rejected steer has been subtracted from the cost of the original lot of 20. All of them had been dehorned as yearlings.

FIRST COST OF THE STEERS.

The expense account of the 19 steers, up to the time they were laid down at the Station, stands as follows:

19 head—weight 19,718 lbs.—@ \$3.45 per cwt.	\$680 .27
Commission.	9 .50
Exchange	1 .05
Freight to Manhattan	19 .06
Total	\$709 .88

Average cost per head laid down at the Experiment Station, \$37.36.

PLAN OF THE EXPERIMENT.

With but slight alterations, the plan was similar to that followed during the previous year's feeding, and reported in Bulletin No. 34.

The object was twofold: First, to compare outdoor with indoor feeding, in order to ascertain what influence shelter has upon feeding; second, to compare results from the feeds given the indoor steers. For this purpose these cattle were divided into five lots, four lots of which were tied up in the barn, and one lot fed in the yard, where they were afforded the shelter of a shed, open to the south but closed on the other three sides. The lots were numbered from I to V.

Lot I consisted of three steers, Nos. 3, 11, and 15. This lot was fed on the so-called balanced ration, consisting of a mixture of corn meal, shorts, bran, and oil meal, in the proportion of 10 pounds corn meal, 5 pounds shorts, 2 pounds bran, and 2 pounds oil meal. March 1 the oil meal was increased to 4 pounds in this mixture. For roughness, tame hay, consisting of orchard grass with a very slight sprinkling of clover.

Lot II consisted of three steers, Nos. 13, 14, and 16. This lot was fed on corn meal and molasses and corn stover.

Lot III consisted of three steers, Nos. 1, 7, and 9, and their feed consisted

exclusively of linseed-oil cake and orchard-grass hay, with the exception of a little corn meal the first two weeks.

Lot IV consisted of five steers, Nos. 4, 5, 6, 10, and 12, and their feed consisted of ear corn and corn stover. These four lots were tied in the barn, under exactly the same conditions as far as shelter and confinement are concerned.

Lot V consisted of five steers, Nos. 2, 8, 17, 18, and 20, and were fed like lot IV, on ear corn and corn stover; but instead of being placed in the barn they were fed out of doors, in a small lot furnished with an open shed, as already mentioned.

The daily routine in the feeding was as follows: They all got their morning meal between 6 and 7 o'clock, the grain being fed first, and when this was eaten the coarse fodder was given them, and about the middle of the forenoon, when this was consumed, they were watered. The feed, both grain and coarse fodder, was weighed to each steer separately. No attempt was made to make them eat a fixed amount. The appetite for the last meal was a guide to the quantity fed at the next meal. The grain was fed each steer in loose box placed in his manger, and whatever was left uneaten was weighed back and deducted from the amount given, so that each was charged with no more than was actually consumed. The coarse feed was in like manner weighed out, and what remained in the manger when the next time to feed arrived was weighed back. An account was also kept of the water they drank, each steer being watered by himself from a bucket placed in front of him, and a record kept of the number of pounds of water drunk each time. At noon the steers in the barn were turned out in the yard for exercise for a couple of hours daily, when the weather permitted, the stable being cleaned in the interval. When returned to their stalls they were first offered water, then fed their grain, and lastly, about 6 o'clock in the evening, they got their coarse feed.

Lot V, which were fed in the yard, could not be given individual attention in the manner it was given to those in the barn. They had access to water at all times, and their grain was weighed out to them all as a whole, the ears being broken into small enough pieces to chew them up conveniently, and the coarse fodder was in like manner weighed to all as a whole, and what remained was weighed back.

A record was kept of the temperature, both in the barn and in the yard, a summary of which is given in what follows.

COST OF FEED.

As was the case last year, the average price of the corn fed cost 33 cents per bushel of 70 pounds ear corn. For the sake of convenience, the prices have been calculated per 100 pounds, as follows:

Ear corn, 47 cents per 100 pounds.

Corn meal, 55 cents per 100 pounds.

- Shorts, 54 cents per 100 pounds.
- Bran, 54 cents per 100 pounds.
- Tame hay, 25 cents per 100 pounds.
- Cornstalks, 12½ cents per 100 pounds.
- Oil meal, \$1.37 per 100 pounds.
- Molasses, \$1.32 per 100 pounds.

These prices include the freight, and therefore represent the actual cost laid down at the Experiment Station. In the case of the molasses, which was bought at Medicine Lodge, in southern Kansas, the price comes altogether too high for the value of the feed, the freight amounting to nearly as much as the cost of the molasses at the factory.

PRELIMINARY FEEDING.

The steers arrived at the Station November 27. From their arrival until November 30, they all remained together in the yard and were fed alike on ear corn and corn fodder, in order to accustom them to the place. On November 30 they were divided into lots, as already described. The lots consisting of the same numbers of steers were as nearly alike in weight as it was possible to make them. The weights on which their division was based were the average of three daily weighings, which were made on November 28, 29, and 30. The average results of these weights are as follows:

No. 1 1,011 pounds.	No. 11. 1,092 pounds.
2. 1,093 "	12. 1,083 "
3. 1,209 "	13. 983 "
4. 1,128 "	14. 1,061 "
5. 1,151 "	15 948 "
6. 1,060 "	16. 1,175 "
7 1,065 "	17 949 "
8... 1,084 "	18. 1,144 "
9. 1,074 "	19 1,112 "
10. 946 "	20 1,091 "

	<i>Total weight.</i>	<i>Av. weight per head.</i>
Lot I.—Steers Nos. 3, 11, and 15.	3,249 lbs.	1.083 lbs.
II.—Steers Nos. 13, 14, and 16	3,219 "	1,073 "
III.—Steers Nos. 1, 7, and 9.	3,150 "	1,050 "
IV.—Steers Nos. 4, 5, 6, 10, and 12.	5,368 "	1.073 "
V.—Steers Nos. 2, 8, 17, 18, and 20.	5,361 "	1,072 "

The average weight per head in lot III falls a little below the others, as it now appears, for the reason that steer No. 19 was originally put in this lot. He was the heaviest steer in the lot, and when it became necessary to remove him from the experiment the three remaining steers averaged somewhat lighter than the other lots.

As soon as the division was made, lot V was turned into the yard and the other four lots tied up in the barn. The steers had not been accustomed to be confined and although they were not viciously obstreperous, still they fretted under the confinement to such a degree that for several days they

fell off in weight. During the first two weeks all were fed alike on ear corn and corn fodder, the intention being that they should be thoroughly accustomed to their confinement before the experiment began. During the third week the feed of lots I, II, and III was gradually modified until, by December 20, when the experiment began, each lot was fed in accordance with the schedule plan.

THE EXPERIMENTS BEGUN.

By December 20, the indoor steers had so far acquiesced in the confinement of the barn that the experiments could begin, although they continued to show some uneasiness for two or three weeks longer, which was, doubtless, detrimental to the best results; but as those in the barn were to be compared with each other and they were all under exactly the same conditions, there could be no vital difference in the results due to any cause except the feed.

In the tables which follow, the results of the daily record have been condensed so that only the amount of feed and water consumed by each steer during each week is given, together with his weight and gain or loss during the week; and, for the sake of more easily comparing these results, the records have again been condensed for periods of four weeks each, showing, besides the amounts and cost of each kind of feed, the total cost of the feed for the period, and the cost per pound of gain.

LOT I—STEER No. 3.

DATE,	CORN MEAL.		SHORTS.		BRAN.		OIL MEAL.		TOTAL GRAIN.		HAY.		Water drunk, pounds.	Weight of steer, pounds.	Gain, pounds.	Ave. age daily gain, pounds.	Cost per lb. of gain, cents.
	Pounds.	Cost	Pounds	Cost.	Pounds	Cost	Pounds	Cost.	Pounds	Cost.	Pounds.	Cost.					
December 20.....	..	..	..	..	..	..	..	..	..	..	..	..	..	1,188	..	..	..
“ 27.....	66.32	\$0.364	33 16	\$0.179	13.26	\$0.071	13.26	\$0.181	126.0	\$0.795	92.0	\$0.230	505 0	1,215	27	3 85	3.85
January 3 ..	96.84	.532	48 42	.261	19.37	.104	19.37	.265	184.0	1.162	61.0	.152	551.0	1,225	10	1 42	13.14
“ 10 ..	109.21	.600	54 61	.294	21.84	.117	21 84	.299	207.5	1.310	38.5	.096	508.0	1,240	15	2.14	9 37
“ 17 ..	99 21	.545	48.61	.267	19 84	.107	19.84	.271	188 5	1 190	63.0	.157	575.5	1,268	28	4.00	4.81
“ 24.....	100.79	.554	50 39	.272	20.16	.108	20 16	.276	191.5	1 212	63 5	.158	489.5	1,284	16	2 28	8 55
“ 31.....	106.84	.587	53 42	.288	21 37	.115	21.37	.292	206.0	1 282	62.5	.156	717.5	1,325	41	5.85	3 50
February 7.....	93.42	.513	46.72	.252	18 68	.100	18 68	.255	177.5	1 120	57.0	.142	564.5	1,326	1	.14	125.20
“ 14 ..	98.95	.544	46.47	.267	19 79	.106	19.79	.271	188.0	1 188	55.0	.137	612.5	1,315	-11	-1.57	All loss
“ 21.....	94.47	.519	47 23	.255	18 90	.102	18 90	.258	179.5	1.134	51.5	.128	588.0	1,332	17	2.42	7.42
“ 28.....	93.42	.513	46.72	.252	18 68	.100	18.68	.255	177.5	1 120	58.0	.145	648.0	1,345	13	1 85	9 73
March 7.....	96.67	.531	46 38	.260	19.33	.104	38.67	.529	203.0	1.424	49.5	.123	609 0	1,381	36	5.14	4 29
“ 14.....	92 86	.510	46.43	.250	18 57	.100	37.14	.508	195 0	1.368	50.0	.125	632.5	1,376	-5	-71	All loss
“ 21.....	95.00	.522	47.50	.256	19.00	.102	38 00	.520	199.5	1.400	46.5	.116	655 0	1,418	42	6.00	3.60
“ 28 ..	94 52	.519	47.27	.255	18.90	.102	37.81	.517	198.5	1.393	45.0	.112	654.0	1,436	18	2.57	8.36
April 4.....	87.14	.479	43.57	.235	17.43	.094	34 86	.477	183.0	1.235	48.0	.120	705.0	1,470	34	4.85	4.13
“ 11.....	85 95	.472	42 98	.232	17 19	.092	34.38	.471	180.5	1.267	53.5	.133	675.0	1,470	0	.00	All loss
“ 18.....	87.86	.483	45.93	.237	17.57	.094	35 14	.481	184.5	1.295	51.5	.128	728.0	1,494	24	3 42	5 92
“ 25 ..	91 19	.501	45 59	.246	18 24	.098	36 48	.499	191 5	1.344	58.5	.146	668.0	1,515	21	3.00	7.09
“ 28.....	26.19	.143	13 09	.070	5 24	.028	10.48	.143	55.0	.394	19.0	.047	288.0	1,627	12	4.00	3.59
Totals.....	1,716.86	\$9.431	858.44	\$4.628	343.36	\$1.844	491.85	\$6.768	3,413.5	\$22.671	1,023.5	\$2.551	11,459.5	.....	339	2.62	7.44

LOT I—STEER No. 11.

DATE.	CORN MEAL		SHORTS.		BRAN.		OIL MEAL.		TOTAL GRAIN.		HAY.		Water drunk, pounds	Weight of steer, pounds	Gain, pounds	Average daily gain, pounds	Cost per lb of gain, cents.
	Pounds.	Cost	Pounds	Cost	Pounds.	Cost.	Pounds	Cost	Pounds	Cost.	Pounds	Cost.					
December 20,														1,075			
“ 27.,	61.84	\$0 340	30.92	\$0 166	12.37	\$0.066	12.37	\$0.169	117.5	\$0.741	69.5	\$0.173	520.5	1,114	39	5.57	2.34
January 3,	91.58	503	45.79	247	18.31	.098	18.31	.250	174.0	1.098	48.0	.120	467.0	1,125	11	1.57	11.07
“ 10	103.42	568	51.72	279	20.68	.111	20.68	.283	196.5	1.241	36.0	.090	583.0	1,136	11	1.57	12.10
“ 17.,	90.00	.495	45.00	243	18.00	.097	18.00	.246	171.0	1.081	56.5	.141	568.0	1,160	24	3.42	5.09
“ 24.,	88.68	.487	44.34	239	17.74	.085	17.74	.243	168.5	1.064	62.5	.156	608.0	1,175	15	2.14	8.13
“ 31	91.05	.500	45.53	245	18.21	.098	18.21	.249	173.0	1.092	55.0	.137	543.5	1,210	35	5.00	3.51
February 7	37.11	.479	43.55	235	17.42	.094	17.42	.238	165.5	1.046	51.0	.127	546.5	1,220	10	1.42	11.73
“ 14	85.27	.468	42.63	230	17.05	.082	17.05	.233	162.0	1.023	48.5	.121	557.5	1,227	7	1.00	16.34
“ 21	83.95	.461	41.97	226	16.79	.090	16.79	.230	159.5	1.007	41.0	.102	573.0	1,247	20	2.85	5.54
“ 28	90.00	.495	45.00	243	18.00	.097	18.00	.246	171.0	1.081	35.0	.087	504.0	1,244	—3	—42	All loss
March 7	80.48	.444	40.24	217	16.09	.086	16.09	.241	169.0	1.188	42.5	.106	526.5	1,280	36	5.14	3.50
“ 14.	76.67	421	38.33	205	15.33	.082	15.33	.240	161.0	1.129	47.5	.118	524.0	1,254	—26	—3.71	All loss
“ 21.	71.43	392	35.71	192	14.29	.077	14.29	.231	150.0	1.052	46.5	.116	518.0	1,308	54	7.71	2.16
“ 28	73.81	.405	36.91	189	14.76	.079	14.76	.240	155.0	1.087	37.5	.093	472.5	1,314	6	.85	19.66
April 4	73.33	403	36.67	198	14.67	.079	14.67	.241	154.0	1.081	41.0	.102	577.0	1,327	23	3.28	5.14
“ 11	63.57	.349	31.79	171	12.71	.068	12.71	.248	133.5	.936	49.0	.122	500.5	1,352	15	2.14	7.05
“ 18	64.76	.356	32.38	174	12.95	.069	12.95	.251	136.0	.953	42.0	.105	408.0	1,358	—14	—2.00	All loss
“ 25	65.48	360	32.74	176	13.09	.070	13.09	.258	137.5	.964	50.0	.125	501.0	1,357	19	2.71	5.73
“ 28	18.81	103	9.41	650	3.76	.020	7.52	103	39.5	276	18.0	.045	231.5	1,365	8	2.66	4.01
Totals	1,461.24	\$8 029	790.63	\$3.936	292.22	\$1.563	409.90	\$5.607	2,894.0	\$19 140	877.0	\$2.186	9,720.0	...	290	2.24	7.35

LOT I—STEER No. 15.

DATE.	CORN MEAL.		SHORTS.		BRAN.		OIL MEAL.		TOTAL GRAIN		HAY.		Water drunk, pounds.	Weight of steer, pounds.	Gain, pounds.	Average daily gain, pounds.	Cost per lb. of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
December 20.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	935			...
" 21.....	65 79	\$0.361	32.90	\$0.177	13.16	\$0.071	13 16	\$0.180	125.0	\$0 789	37.5	\$0.093	344.5	970	-15	-2.14	All loss
January 3.....	85.52	.470	42.76	.230	17.11	.092	17.11	.234	162.5	1 026	12.5	.031	385 0	1,900	30	4 28	3.52
" 10.....	71.32	.392	35.66	.192	14 26	.077	14 26	.195	135.5	.856	24 5	.061	431 5	1,083	33	4.71	2 77
" 17.....	67.37	.370	33.69	.181	13.47	.072	13 47	.184	128 0	.807	31 5	.078	437.0	1,051	18	2 57	4.91
" 24.....	70.79	.389	35 39	.191	14.16	.076	14 16	.193	134 5	.819	39 0	.097	445.5	1,058	7	1 00	13 50
" 31.....	77.63	.426	38 81	.209	15.53	.083	15.53	.212	147 5	.930	41.0	.102	476.0	1,083	35	5.00	2 94
February 7..	86.05	.473	43.03	.232	17 21	.092	17 21	.235	163 5	1.032	45 0	.112	505.5	1,125	32	4 57	3.57
" 14.....	85 27	.468	42.63	.230	17.05	.092	17 05	.233	162 0	1.023	34.0	.085	499 0	1,111	-13	-2 00	All loss
" 21.....	82.11	.451	41.05	.221	16.42	.088	16.42	.224	156 0	.984	38.5	.096	524.5	1,145	34	4.85	3 17
" 28.....	82.11	.451	41.05	.221	15.42	.088	15 42	.224	156 0	.984	34 5	.086	556 0	1,178	33	4.71	3.24
March 7.....	76 48	.415	37.74	.203	15.09	.081	30.19	.413	158.5	1.112	43.0	.107	551.5	1,130	12	1.71	10 15
" 14.....	79.09	.401	36.55	.197	14.62	.079	29.24	.400	153.5	1.077	40.5	.101	532 0	1,181	-9	-1.28	All loss
" 21.....	74 05	.407	37 02	.199	14 81	.079	29.62	.405	155 5	1.090	41 5	.103	535.0	1,203	27	3.85	4 41
" 28.....	75.71	.416	37.86	.204	15.14	.081	30 29	.414	159.0	1.115	42.5	.106	563.0	1,240	32	4.57	3.81
April 4.....	63 57	.349	31 79	.171	12 71	.068	27 43	.348	138 5	.936	35.0	.087	651.5	1,282	12	1.71	8 52
" 11.....	43 09	.236	21 55	.116	8.62	.046	17.24	.236	90.5	.634	47 0	.117	468.0	1,240	-12	-1 71	All loss
" 18.....	57.14	.314	28 57	.154	11.43	.061	22.86	.313	120 0	.842	49 0	.122	532 0	1,256	16	2.28	6 02
" 25.....	58 33	.320	29.17	.157	11 67	.063	23.33	.319	122 5	.859	46 5	.116	547 0	1,275	19	2.71	5.13
" 23.....	16.91	.093	8.45	.045	3 38	.013	6 76	.092	36 5	.248	13 0	.032	242.0	1,283	8	2.66	3.50
Totals	1,311 33	\$7,202	655.67	\$3 530	262 26	\$1,407	369.75	\$5 054	2,593 0	\$17,133	636.0	\$4 732	9,274 0		298	2.31	6.35

LOT I—STEER No. 3.

FEED EATEN (pounds), COST OF FEED, AND COST PER POUND OF GAIN, BY PERIODS.

Number of period.	Corn meal.	Shorts.	Bran.	Oil meal.	Total grain.	Hay.	Water drunk.	Weight of steer.	Gain.	Average daily gain.
1st. December 20, January 17.	371.58	185.8	74.31	74.31	706.0	254.5	2,136.5	1,188 1,268	80	2.85
	\$2.041	\$1.001	\$0.399	\$1.016		\$0.635				
Weight of feed, 960.5 pounds. Cost of feed, \$5.092. Cost per pound of gain, 6.36 cents.										
2d. January 17, February 14.	400.00	200.00	80.00	80.00	760.0	238.0	2,384.0	1,315	47	1.67
	\$2.198	\$1.079	\$0.429	\$1.094		\$0.593				
Weight of feed, 998 pounds. Cost of feed, \$5.393. Cost per pound of gain, 11.47 cents.										
3d. February 14, March 14.	377.42	188.71	75.48	113.39	755.0	209.0	2,567.5	1,376	61	2.17
	\$2.073	\$1.017	\$0.406	\$1.55		\$0.521				
Weight of feed, 964 pounds. Cost of feed, \$5.567. Cost per pound of gain, 9.12 cents.										
4th. March 14, April 11.	362.61	181.32	72.52	145.05	761.5	193.0	2,689.0	1,470	94	3.35
	\$1.992	\$0.978	\$0.39	\$1.985		\$0.481				
Weight of feed, 954.5 pounds. Cost of feed, \$5.826. Cost per pound of gain, 6.19 cents.										
5th. April 11, April 28.	205.24	102.61	41.05	82.10	431.0	129.0	1,684.0	1,527	57	3.17
	\$1.127	\$0.553	\$0.22	\$1.123		\$0.321				
Weight of feed, 560 pounds. Cost of feed, \$3.344. Cost per pound of gain, 5.86 cents.										

Total food consumed, 4,437 pounds.

Gain in 129 days, 339 pounds.

Average daily gain, 2.62 pounds.

Total cost of feed, \$25.222.

Cost per pound of gain, 7.44 cents.

LOT I—STEER No. 11.

FEED EATEN (pounds), COST OF FEED, AND COST PER POUND OF GAIN, BY PERIODS.

Number of period.	Corn meal.	Shorts.	Bran.	Oil meal.	Total grain.	Hay.	Water drunk.	Weight of steer.	Gain.	Average daily gain.
1st. December 20, January 17.	346.84	173.43	69.36	69.36	658.99	210.0	2,128.5	1,075 1,160	85	3.03
	\$1.906	\$0.935	\$0.372	\$0.948		\$0.524				
Weight of feed, 863.99 pounds. Cost of feed, \$4.685. Cost per pound of gain, 5.51 cents.										
2d. January 17, February 14.	352.11	176.05	70.42	70.42	669.0	217.0	2,255.5	1,227	67	2.39
	\$1.934	\$0.949	\$0.379	\$0.963		\$0.541				
Weight of feed, 886 pounds. Cost of feed, \$4.766. Cost per pound of gain, 7.11 cents.										
3d. February 14, March 14.	331.10	165.54	66.21	97.65	660.5	166.0	2,127.5	1,254	27	.96
	\$1.821	\$0.892	\$0.355	\$1.337		\$0.413				
Weight of feed, 826.5 pounds. Cost of feed, \$4.818. Cost per pound of gain, 17.84 cents.										
4th. March 14, April 11.	282.14	141.08	56.43	112.85	592.5	174.0	2,068.0	1,352	98	3.5
	\$1.549	\$0.760	\$0.303	\$1.544		\$0.433				
Weight of feed, 766.5 pounds. Cost of feed, \$4.589. Cost per pound of gain, 4.68 cents.										
5th. April 11, April 28.	149.05	74.53	29.80	59.62	313.0	110.0	1,140.5	1,365	13	.76
	\$0.819	\$0.40	\$0.159	\$0.815		\$0.275				
Weight of feed, 423 pounds. Cost of feed, \$2.468. Cost per pound of gain, 18.98 cents.										

Total food consumed, 3,770.99 pounds.

Gain in 129 days, 290 pounds.

Average daily gain, 2.24 pounds.

Total cost of feed, \$21.326.

Cost per pound of gain, 7.35 cents.

LOT I—STEER No. 15.

FEED EATEN (pounds), COST OF FEED, AND COST PER POUND OF GAIN, BY PERIODS.

Number of period.	Corn meal.	Shorts.	Bran.	Oil meal.	Total grain.	Hay.	Water drunk.	Weight of steer.	Gain.	Average daily gain.
1st. December 20, January 17.	290.0	145.01	58.0	58.0	551.01	106.0	1,598.0	985 1,051	66	2.35
	\$1.593	\$0.78	\$0.312	\$0.793		\$0.263				
Weight of feed, 657.01 pounds. Cost of feed, \$3.741. Cost per pound of gain, 5.66 cents.										
2d. January 17, February 14.	319.74	159.86	63.95	63.95	607.5	159.0	1,926.0	1,111	60	2.14
	\$1.756	\$0.862	\$0.343	\$0.873		\$0.396				
Weight of feed, 766.5 pounds. Cost of feed, \$4.23. Cost per pound of gain, 7.05 cents.										
3d. February 14, March 14.	312.79	156.39	62.55	92.27	624.0	156.5	2,164.0	1,181	70	2.5
	\$1.718	\$0.842	\$0.336	\$1.261		\$0.39				
Weight of feed, 780.5 pounds. Cost of feed, \$4.547. Cost per pound of gain, 6.49 cents.										
4th. March 14, April 11.	256.42	128.22	51.28	102.58	538.5	166.0	2,217.5	1,240	59	2.1
	\$1.408	\$0.69	\$0.274	\$1.403		\$0.413				
Weight of feed, 704.5 pounds. Cost of feed, \$4.188. Cost per pound of gain, 7.09 cents.										
5th. April 11, April 28.	132.38	66.19	26.43	52.95	278.0	108.5	1,371.0	1,283	43	2.53
	\$0.727	\$0.356	\$0.142	\$0.724		\$0.27				
Weight of feed, 386.5 pounds. Cost of feed, \$2.219. Cost per pound of gain, 5.16 cents.										

Total food consumed, 3,295.01 pounds.

Gain in 129 days, 298 pounds.

Average daily gain, 2.31 pounds.

Total cost of feed, \$18.925.

Cost per pound of gain, 6.35 cents.

LOT II—STEER No. 13.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	MOLASSES.		CORN MEAL.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20...								1,121			
" 27...	23.00	\$0.308	104.00	\$0.572	84.5	\$0.105	292.5	1,042	-79	-11.28	All loss
Jan. 3...	11.41	.150	118.59	.652	67.0	.083	291.0	1,030	-12	-1.71	All loss
" 10...	2.00	.026	127.00	.698	64.0	.080	303.5	1,035	5	.71	16.08
" 17...	72.75	.960	115.00	.632	53.5	.066	400.5	1,080	45	6.42	3.68
" 24...	73.20	.966	70.55	.388	71.0	.088	444.0	1,079	-1	-1.14	All loss
" 31...	75.21	.992	80.23	.441	68.5	.085	519.0	1,115	36	5.14	4.21
Feb. 7...	76.41	1.008	54.34	.298	75.0	.093	477.5	1,070	-45	-6.42	All loss
" 14...	78.24	1.032	53.64	.295	76.5	.095	460.5	1,115	45	6.42	3.16
" 21...	82.45	1.088	58.64	.322	67.5	.084	544.0	1,109	-6	-.85	All loss
" 28...	82.94	1.094	58.99	.324	72.5	.090	614.0	1,133	24	3.42	6.28
Mar. 7...	83.24	1.098	59.19	.325	62.5	.078	571.0	1,113	-20	-2.85	All loss
" 14...	76.31	1.007	54.42	.299	68.5	.085	588.0	1,138	25	3.57	5.56
" 21...	79.78	1.052	56.70	.311	78.5	.098	599.5	1,150	12	1.71	12.17
" 28...	70.96	.936	50.47	.277	66.5	.083	484.0	1,144	-6	-.85	All loss
Apr. 4...	74.28	.980	81.90	.450	64.0	.080	520.5	1,181	37	5.28	4.08
" 11...	60.56	.799	86.15	.473	56.0	.070	479.0	1,166	-15	-2.14	All loss
" 18...	64.15	.846	91.25	.501	63.5	.079	547.0	1,185	19	2.71	7.50
" 25...	4.71	.062	111.71	.614	88.5	.110	405.0	1,205	20	2.85	3.93
" 28...			35.50	.195	23.5	.023	221.0	1,230	25	8.33	.89
Totals...	1,091.55	\$14.399	1,468.27	\$8.067	1,271.5	\$1.581	8,861.5		109	.844	22.06

No. of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.											
1st.	109.16	\$1.489	464.57	\$2.554	289.0	\$0.334	1,287.5	1,121	1,080	-41	-1.46	All loss
Dec. 20, Jan. 17.	Weight of feed, 842.75 pounds. Cost of feed, \$4.327. Cost per pound of gain, all loss.											
2d.	303.06	\$3.998	258.76	\$1.422	291.0	\$0.361	2,001.0	1,115	35	1.25	16.51	
Jan. 17, Feb. 14.	Weight of feed, 852.82 pounds. Cost of feed, \$5.781. Cost per pound of gain, 16.51 cents.											
3d.	324.94	\$4.287	231.24	\$1.270	271.0	\$0.337	2,317.0	1,138	23	.82	25.60	
Feb. 14, Mar. 14.	Weight of feed, 827.18 pounds. Cost of feed, \$5.894. Cost per pound of gain, 25.6 cents.											
4th.	285.53	\$3.767	275.22	\$1.511	265.0	\$0.331	2,082.5	1,166	28	1.00	20.03	
Mar. 14, Apr. 11.	Weight of feed, 825.75 pounds. Cost of feed, \$5.609. Cost per pound of gain, 20.03 cents.											
5th.	68.86	\$0.908	238.46	\$1.310	175.5	\$0.218	1,173.0	1,230	64	3.76	3.80	
Apr. 11, Apr. 28.	Weight of feed, 482.32 pounds. Cost of feed, \$2.456. Cost per pound of gain, 3.8 cents.											

LOT II—STEER No. 14.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	MOLASSES.		CORN MEAL.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20...								1,063			
" 27...	23.00	\$0.303	104.00	\$0.572	89.0	\$0.111	351.0	1,093	30	4.28	3.28
Jan. 3...	11.92	.157	113.58	.624	78.0	.097	302.5	1,097	4	.57	21.95
" 10...	2.00	.026	123.50	.679	67.5	.084	339.0	1,105	8	1.14	9.86
" 17...	56.15	.741	96.60	.531	55.5	.069	404.5	1,120	15	2.14	8.94
" 24...	55.44	.731	53.72	.295	70.0	.067	414.0	1,145	25	3.57	4.45
" 31...	58.76	.775	62.68	.344	65.0	.081	422.0	1,138	-7	-1.00	All loss
Feb. 7...	54.50	.719	39.78	.218	73.5	.091	446.5	1,135	-3	-.42	All loss
" 14...	65.38	.863	44.49	.244	78.0	.097	519.0	1,133	-2	-.23	All loss
" 21...	67.65	.892	43.10	.264	75.5	.094	485.5	1,135	2	.28	62.50
" 28...	66.09	.872	47.00	.253	75.5	.094	575.0	1,145	10	1.42	12.24
Mar. 7...	67.84	.895	48.25	.265	71.0	.083	551.5	1,161	16	2.28	7.80
" 14...	64.63	.853	45.96	.252	64.5	.080	606.5	1,160	-1	-.14	All loss
" 21...	70.18	.926	49.91	.274	75.5	.094	596.5	1,175	15	2.14	8.62
" 28...	72.81	.961	51.78	.284	70.5	.088	566.5	1,191	16	2.28	8.33
Apr. 4...	69.22	.913	74.11	.407	64.0	.080	660.5	1,202	11	1.57	12.72
" 11...	61.47	.811	87.43	.480	61.5	.076	563.0	1,227	25	3.57	5.46
" 18...	63.95	.844	90.95	.500	73.0	.091	546.0	1,229	2	.28	71.75
" 25...	4.92	.064	119.00	.654	91.5	.114	501.0	1,255	26	3.71	3.20
" 28...			35.00	.192	20.0	.025	209.5	1,250	5	-1.66	All loss
Totals...	935.91	\$12.346	1,335.31	\$7.337	1,319.0	\$1.641	9,060.0		187	1.45	11.40

No. of period.

SAME CONDENSED INTO PERIODS OF FOUR WEEKS.

1st.	93.07	\$1.227	437.68	\$2.406	290.0	\$0.361	1,397.0	1,063	57	2.03	7.00
Dec. 20, Jan. 17.	Weight of feed, 820.75 pounds. Cost of feed, \$3.994. Cost per pound of gain, 7 cents.										
2d.	234.08	\$3.083	200.64	\$1.101	286.5	\$0.356	1,801.5	1,133	13	.46	34.92
Jan. 17, Feb. 14.	Weight of feed, 721.22 pounds. Cost of feed, \$4.545. Cost per pound of gain, 34.92 cents.										
3d.	265.21	\$3.512	189.31	\$1.039	286.5	\$0.356	2,218.5	1,160	27	.96	18.15
Feb. 14, Mar. 14.	Weight of feed, 742.02 pounds. Cost of feed, \$4.907. Cost per pound of gain, 18.15 cents.										
4th.	273.63	\$3.611	263.23	\$1.445	271.5	\$0.338	2,386.5	1,227	67	2.39	8.05
Mar. 14, Apr. 11.	Weight of feed, 808.41 pounds. Cost of feed, \$5.394. Cost per pound of gain, 8.05 cents.										
5th.	68.87	\$0.908	244.95	\$1.346	184.5	\$0.230	1,256.5	1,250	23	1.35	10.80
Apr. 11, Apr. 28.	Weight of feed, 493.32 pounds. Cost of feed, \$2.484. Cost per pound of gain, 10.8 cents.										

LOT II—STEER No. 16.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	MOLASSES.		CORN MEAL.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20...								1,162			
“ 27...	23.00	\$0.303	104.00	\$0.572	100.5	\$0.125	351.0	1,200	38	5.42	2.63
Jan. 3...	14.00	.184	152.00	.836	97.5	.121	364.5	1,199	-1	-.14	All loss
“ 10...	2.00	.026	173.50	.954	77.0	.096	487.5	1,238	39	5.57	2.75
“ 17...	56.97	.752	129.28	.711	67.5	.084	399.0	1,250	12	1.71	12.89
“ 24...	83.88	1.133	83.21	.457	72.5	.090	538.5	1,285	35	5.00	4.80
“ 31...	100.78	1.330	107.50	.591	65.5	.081	569.0	1,284	-1	-.14	All loss
Feb. 7...	92.21	1.217	65.57	.360	71.5	.089	636.0	1,284	0	0	All loss
“ 14...	99.88	1.318	71.03	.390	69.0	.086	696.5	1,300	16	2.28	11.21
“ 21...	96.88	1.278	68.90	.378	66.0	.082	636.5	1,305	5	.71	34.76
“ 28...	93.87	1.239	66.75	.367	72.0	.090	630.0	1,305	0	0	All loss
Mar. 7...	91.53	1.208	65.09	.357	67.0	.083	692.0	1,324	19	2.71	8.67
“ 14...	97.96	1.293	69.66	.383	71.0	.088	696.5	1,324	0	0	All loss
“ 21...	102.05	1.347	72.57	.399	75.5	.094	660.5	1,313	-11	-1.57	All loss
“ 28...	104.68	1.381	74.44	.409	70.5	.088	598.0	1,350	37	5.28	5.07
Apr. 4...	97.47	1.286	104.90	.576	57.0	.071	669.0	1,395	45	6.42	4.29
“ 11...	76.95	1.015	109.45	.601	59.0	.073	587.5	1,417	22	3.14	7.67
“ 18...	85.91	1.134	122.18	.671	74.5	.093	594.0	1,420	3	.42	63.26
“ 25...	6.11	.080	53.71	.295	104.0	.130	437.0	1,430	10	1.42	5.05
“ 28...			29.00	.159	29.0	.036	232.0	1,427	-3	-1.00	All loss
Totals...	1,328.13	\$17.524	1,722.74	\$9.466	1,366.5	\$1.700	10,475.0		265	2.054	10.82

No. of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.										
1st.	95.97	\$1.265	558.78	\$3.073	342.5	\$0.426	1,602	1,162	88	3.14	5.41
Dec. 20, Jan. 17.	Weight of feed, 997.25 pounds. Cost of feed, \$4,761. Cost per pound of gain, 5.41 cents.										
2d.	378.75	\$4.998	327.31	\$1.798	278.5	\$0.346	2,440	1,300	50	1.78	14.28
Jan. 17, Feb. 14.	Weight of feed, 984.56 pounds. Cost of feed, \$7,142. Cost per pound of gain, 14.28 cents.										
3d.	380.24	\$5.018	270.40	\$1.485	276.0	\$0.343	2,655	1,313	13	.46	52.66
Feb. 14, Mar. 14.	Weight of feed, 926.64 pounds. Cost of feed, \$6,846. Cost per pound of gain, 52.66 cents.										
4th.	381.15	\$5.029	361.36	\$1.985	262.0	\$0.326	2,515	1,417	102	3.64	7.19
Mar. 14, Apr. 11.	Weight of feed, 1,004.51 pounds. Cost of feed, \$7,344. Cost per pound of gain, 7.19 cents.										
5th.	92.02	\$1.214	204.89	\$1.125	207.5	\$0.259	1,263	1,427	10	.58	25.98
Apr. 11, Apr. 28.	Weight of feed, 504.41 pounds. Cost of feed, \$2,598. Cost per pound of gain, 25.98 cents.										

LOT III—STEER No. 1.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	CORN MEAL.		OIL MEAL.		HAY.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20...								1,048			
“ 27...	58.00	\$0.319	54.00	\$0.739	90.0	\$0.225	534.5	1,070	22	3.14	4.38
Jan. 3...	52.87	.290	111.63	1.529	48.5	.121	571.5	1,082	12	1.71	13.75
“ 10...			117.50	1.609	66.0	.165	639.0	1,091	9	1.28	19.71
“ 17...			89.00	1.219	87.5	.218	663.5	1,119	28	4.00	5.13
“ 24...			63.50	.869	111.0	.277	674.5	1,141	22	3.14	5.20
“ 31...			64.50	.883	119.0	.297	641.0	1,175	34	4.85	3.47
Feb. 7...			78.50	1.075	119.5	.298	673.0	1,192	17	2.42	8.07
“ 14...			58.00	.794	120.0	.300	661.5	1,190	-2	-28	All loss
“ 21...			58.50	.801	120.0	.300	618.0	1,188	-2	-28	All loss
“ 28...			61.50	.842	119.5	.298	661.5	1,189	1	.14	100.14
Mar. 7...			76.50	1.048	120.5	.301	718.0	1,236	47	6.71	2.87
“ 14...			61.00	.835	118.5	.296	698.5	1,245	9	1.28	12.56
“ 21...			75.50	1.034	121.5	.303	649.0	1,227	-18	-2.57	All loss
“ 28...			75.50	1.034	121.5	.303	724.5	1,263	36	5.14	3.71
Apr. 4...			74.50	1.020	117.0	.292	746.5	1,263	0	0	All loss
“ 11...			51.50	.705	117.0	.292	655.0	1,286	23	3.28	4.33
“ 18...			70.00	.959	118.0	.295	698.0	1,305	19	2.71	6.60
“ 25...			70.50	.965	117.5	.293	740.0	1,299	-6	-85	All loss
“ 28...			21.50	.294	32.5	.081	301.5	1,298	-1	-33	All loss
Totals...	110.87	\$0.609	1,333.13	\$18.254	1,985.0	\$4.955	12,269.0		250	1.93	9.28

No. of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.										
1st.	110.87	\$0.609	372.13	\$5.096	292.0	\$0.729	2,408.5	1,048	71	2.53	9.06
Dec. 20, Jan. 17.	Weight of feed, 775 pounds. Cost of feed, \$6.434. Cost per pound of gain, 9.06 cents.										
2d.			264.50	\$3.621	469.5	\$1.172	2,650.0	1,190	71	2.53	6.75
Jan. 17, Feb. 14.	Weight of feed, 734 pounds. Cost of feed, \$4.793. Cost per pound of gain, 6.75 cents.										
3d.			257.50	\$3.526	478.5	\$1.195	2,696.0	1,245	55	1.96	8.58
Feb. 14, Mar. 14.	Weight of feed, 736 pounds. Cost of feed, \$4.721. Cost per pound of gain, 8.58 cents.										
4th.			277.00	\$3.793	477.0	\$1.190	2,775.0	1,286	41	1.46	12.15
Mar. 14, Apr. 11.	Weight of feed, 754 pounds. Cost of feed, \$4.983. Cost per pound of gain, 12.15 cents.										
5th.			162.00	\$2.180	268.0	\$0.669	1,739.5	1,298	12	.70	24.06
Apr. 11, Apr. 28.	Weight of feed, 430 pounds. Cost of feed, \$2.887. Cost per pound of gain, 24.06 cents.										

LOT III—STEER No. 7.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	CORN MEAL.		OIL MEAL.		HAY.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20								1,071			
" 27	52.30	\$0.287	48.70	\$0.667	83.0	\$0.207	507.0	1,105	34	4.85	2.57
Jan. 3	48.37	.265	102.13	1.399	60.5	.151	559.0	1,091	-14	-2.00	All loss
" 10			110.50	1.513	60.5	.151	626.5	1,094	3	.42	55.46
" 17			92.50	1.267	81.5	.203	643.0	1,119	25	3.57	5.88
" 24			84.00	1.150	92.0	.230	618.5	1,144	25	3.57	5.52
" 31			80.00	1.096	98.5	.246	569.0	1,151	7	1.00	19.17
Feb. 7			77.00	1.054	96.5	.241	580.0	1,149	-2	-.28	All loss
" 14			65.50	.897	97.5	.243	578.0	1,154	5	.71	22.80
" 21			70.00	.959	89.0	.222	500.0	1,127	-27	-3.85	All loss
" 28			69.00	.945	102.0	.255	567.0	1,155	28	4.00	4.28
Mar. 7			75.50	1.034	100.5	.251	612.0	1,184	29	4.14	4.43
" 14			70.50	.985	99.0	.240	542.5	1,164	-20	-2.85	All loss
" 21			78.00	1.068	100.5	.251	577.0	1,187	23	3.28	5.73
" 28			73.50	1.006	102.0	.255	586.5	1,205	18	2.57	7.00
Apr. 4			79.00	1.082	102.0	.255	699.0	1,188	-17	-2.42	All loss
" 11			57.00	.780	107.5	.263	588.0	1,185	-3	-.42	All loss
" 18			51.00	.698	110.0	.275	563.0	1,199	14	2.00	6.95
" 25			61.00	.835	108.0	.270	604.0	1,210	11	1.57	10.04
" 28			17.50	.239	32.5	.081	236.0	1,211	1	.33	32.00
Totals	100.67	\$0.552	1,362.33	\$18.654	1,720.0	\$4.295	10,756.0		140	1.08	16.39

No. of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.											
1st.	100.67	\$0.552	353.83	\$4.846	285.5	\$0.712	2,335.5	1,071	1,119	48	1.71	12.73
Dec. 20, Jan. 17.	Weight of feed, 740 pounds. Cost of feed, \$6.11. Cost per pound of gain, 12.73 cents.											
2d.			306.50	\$4.197	384.5	\$0.960	2,345.5	1,154	85	1.25	14.71	
Jan. 17, Feb. 14.	Weight of feed, 691 pounds. Cost of feed, \$5.157. Cost per pound of gain, 14.71 cents.											
3d.			285.00	\$3.908	387.5	\$0.963	2,220.5	1,164	10	.35	48.71	
Feb. 14, Mar. 14.	Weight of feed, 672.5 pounds. Cost of feed, \$4.871. Cost per pound of gain, 48.71 cents.											
4th.			287.50	\$3.936	412.0	\$1.029	2,450.5	1,185	21	.75	23.64	
Mar. 14, Apr. 11.	Weight of feed, 699.5 pounds. Cost of feed, \$4.965. Cost per pound of gain, 23.64 cents.											
5th.			129.50	\$1.772	250.5	\$0.626	1,403.0	1,211	26	1.53	9.22	
Apr. 11, Apr. 28.	Weight of feed, 380 pounds. Cost of feed, \$2.398. Cost per pound of gain, 9.22 cents.											

LOT III—STEER No. 9.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	CORN MEAL		OIL MEAL.		HAY.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.					
Dec. 20...								1,088			
" 27...	58.00	\$0.819	54.00	\$0.739	76.0	\$0.190	447.0	1,119	31	4.42	2.99
Jan. 3...	50.46	.277	106.54	1.459	42.5	.106	504.5	1,118	-1	-.14	All loss
" 10...			131.00	1.794	60.0	.150	604.0	1,155	37	5.28	5.25
" 17...			119.50	1.637	69.5	.173	623.5	1,159	4	.57	45.25
" 24...			114.00	1.561	82.0	.205	696.0	1,197	38	5.42	4.64
" 31...			100.00	1.370	90.5	.226	609.5	1,220	23	3.28	6.93
Feb. 7...			114.00	1.561	91.0	.227	657.0	1,237	17	2.42	10.51
" 14...			114.00	1.561	98.5	.246	690.5	1,236	-1	-.14	All loss
" 21...			100.00	1.370	111.5	.278	661.5	1,252	16	2.28	10.30
" 28...			103.00	1.411	111.0	.277	698.5	1,272	20	2.85	8.44
Mar. 7...			109.00	1.493	112.0	.280	777.5	1,285	13	1.85	13.63
" 14...			114.00	1.561	97.0	.242	678.0	1,266	-19	-2.71	All loss
" 21...			117.00	1.602	111.0	.277	739.0	1,308	42	6.00	4.47
" 28...			110.50	1.513	116.0	.290	755.0	1,339	31	4.42	5.81
Apr. 4...			102.00	1.397	112.0	.280	666.0	1,329	-10	-1.42	All loss
" 11...			81.00	1.109	115.5	.288	724.5	1,350	21	3.00	6.65
" 18...			90.50	1.239	115.0	.287	724.5	1,367	17	2.42	8.97
" 25...			94.00	1.287	117.0	.292	758.0	1,380	13	1.85	12.14
" 28...			26.50	.363	32.0	.080	297.5	1,369	-11	-3.66	All loss
Totals...	108.46	\$0.596	1,900.54	\$26.027	1,760.0	\$4.394	12,312.0		231	2.17	10.82

No of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.										
1st.	108.46	\$0.596	411.04	\$5.629	248.0	\$0.619	2,179.0	1,088	71	2.53	9.64
Dec. 20, Jan. 17.	Weight of feed, 767.5 pounds. Cost of feed, \$6.844. Cost per pound of gain, 9.64 cents.										
2d.			442.00	\$6.053	382.0	\$0.904	2,653.0	1,236	77	2.75	9.03
Jan. 17, Feb. 14.	Weight of feed, 804 pounds. Cost of feed, \$6.957. Cost per pound of gain, 9.03 cents.										
3d.			426.00	\$5.835	431.5	\$1.074	2,815.5	1,266	30	1.07	23.04
Feb. 14, Mar. 14.	Weight of feed, 857.5 pounds. Cost of feed, \$6.912. Cost per pound of gain, 23.04 cents.										
4th.			410.50	\$5.621	454.5	\$1.135	2,884.5	1,350	84	3.00	8.04
Mar. 14, Apr. 11.	Weight of feed, 865 pounds. Cost of feed, \$8.756. Cost per pound of gain, 8.04 cents.										
5th.			211.00	\$2.889	264.0	\$0.659	1,780.0	1,369	19	1.11	18.67
Apr. 11, Apr. 28.	Weight of feed, 475 pounds. Cost of feed, \$3.548. Cost per pound of gain, 18.67 cents.										

LOT IV—STEER No. 4.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	EAR CORN.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.					
December 20.....						1,100			
“ 27.....	171.0	\$0.803	68.0	\$0.085	317.5	1,140	40	5.71	2.22
January 3.....	183.5	.862	52.0	.065	303.0	1,147	7	1.00	13.24
“ 10.....	184.0	.864	41.0	.051	409.0	1,169	22	3.14	4.15
“ 17.....	158.5	.744	49.0	.061	323.0	1,195	26	3.71	3.09
“ 24.....	181.5	.853	50.5	.063	316.5	1,198	3	.42	30.53
“ 31.....	173.0	.813	56.0	.070	332.5	1,230	32	4.57	2.75
February 7.....	150.5	.707	71.5	.089	326.0	1,239	9	1.28	8.84
“ 14.....	166.5	.782	60.0	.075	397.0	1,256	17	2.42	5.04
“ 21.....	146.5	.688	67.5	.084	336.0	1,245	-11	-1.57	All loss
“ 28.....	151.5	.712	68.0	.085	383.0	1,271	26	3.71	3.06
March 7.....	145.0	.681	60.5	.075	341.5	1,285	14	2.09	5.40
“ 14.....	127.0	.596	57.0	.071	392.0	1,268	-17	-2.42	All loss
“ 21.....	118.5	.556	80.0	.100	404.0	1,291	23	3.28	2.85
“ 28.....	140.5	.660	71.5	.089	388.0	1,313	22	3.14	3.40
April 4.....	126.5	.594	61.0	.076	495.0	1,327	14	2.00	4.78
“ 11.....	89.5	.392	78.5	.091	417.0	1,345	18	2.57	2.68
“ 18.....	84.0	.394	82.0	.102	363.0	1,330	-15	-2.14	All loss
“ 25.....	93.5	.439	83.5	.104	416.0	1,340	10	1.42	5.43
“ 28.....	17.0	.079	23.5	.029	222.0	1,348	8	2.66	1.35
Totals.....	2,602.0	\$12.219	1,176.0	\$1.465	6,882.0		248	1.92	5.51

Number of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.								
1st.	697.0	\$3.273	210.0	\$0.262	1,352.5	1,100 1,195	95	3.39	3.72
December 20, January 17.	Weight of feed, 907 pounds. Cost of feed, \$3.535. Cost per pound of gain, 3.72 cents.								
2d.	671.5	\$3.155	238.0	\$0.297	1,372.0	1,256	61	2.17	5.65
January 17, February 14.	Weight of feed, 909.5 pounds. Cost of feed, \$3.452. Cost per pound of gain, 5.65 cents.								
3d.	570.0	\$2.677	253.0	\$0.315	1,452.5	1,268	12	.42	24.90
February 14, March 14.	Weight of feed, 823 pounds. Cost of feed, \$2.992. Cost per pound of gain, 24.9 cents.								
4th.	469.0	\$2.202	286.0	\$0.356	1,704.0	1,345	77	2.75	3.32
March 14, April 11.	Weight of feed, 755 pounds. Cost of feed, \$2.553. Cost per pound of gain, 3.32 cents.								
5th.	194.5	\$0.912	189.0	\$0.235	1,001.0	1,348	3	.17	38.20
April 11, April 28.	Weight of feed, 393.5 pounds. Cost of feed, \$1.147. Cost per pound of gain, 38.2 cents.								

LOT IV—STEER No. 5.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	EAR CORN.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.					
December 20.....						1,165			
“ 27.....	171.5	\$0.866	76.0	\$0.095	379.5	1,185	20	2.85	4.50
January 3.....	168.5	.791	67.0	.083	377.0	1,185	0	.00	All loss
“ 10.....	149.5	.702	59.5	.074	487.5	1,206	21	3.00	3.69
“ 17.....	188.0	.883	52.5	.065	369.5	1,230	24	3.45	3.95
“ 24.....	197.5	.928	57.5	.071	424.5	1,229	—1	—14	All loss
“ 31.....	167.5	.787	64.0	.080	401.0	1,258	29	4.14	2.98
February 7.....	157.0	.737	74.0	.092	381.5	1,273	15	2.14	5.52
“ 14.....	164.5	.773	87.0	.108	460.5	1,300	27	3.85	3.26
“ 21.....	170.5	.801	79.0	.098	406.0	1,295	—5	—71	All loss
“ 28.....	179.5	.843	80.5	.100	437.0	1,325	30	4.28	3.14
March 7.....	185.0	.869	65.0	.081	376.0	1,345	20	2.85	4.75
“ 14.....	182.5	.857	72.0	.090	463.5	1,365	20	2.85	4.78
“ 21.....	176.0	.827	71.5	.089	408.0	1,380	15	2.14	6.10
“ 28.....	164.0	.770	72.5	.090	431.5	1,406	26	3.71	3.30
April 4.....	165.0	.775	79.5	.099	543.0	1,421	15	2.14	5.82
“ 11.....	148.0	.695	80.0	.100	478.5	1,443	22	3.14	3.61
“ 18.....	150.0	.705	84.5	.105	436.5	1,423	—20	—2.85	All loss
“ 25.....	146.5	.688	89.0	.111	479.0	1,449	26	3.71	3.07
“ 28.....	41.0	.192	24.5	.030	224.0	1,465	16	5.33	1.39
Totals.....	3,072.0	\$14.429	1,385.5	\$1.661	7,954.0		300	2.32	5.36

Number of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.								
1st.	677.5	\$3.182	255.0	\$0.317	1,613.5	1,165 1,230	65	2.32	5.38
December 20, January 17.	Weight of feed, 932.5 pounds. Cost of feed, \$3,499. Cost per pound of gain, 5.38 cents.								
2d.	686.5	\$3.225	282.5	\$0.351	1,667.5	1,300	70	2.50	5.10
January 17, February 14.	Weight of feed, 969 pounds. Cost of feed, \$3,576. Cost per pound of gain, 5.10 cents.								
3d.	717.5	\$3.370	296.5	\$0.369	1,682.5	1,365	65	2.32	5.75
February 14, March 14.	Weight of feed, 1,014 pounds. Cost of feed, \$3,739. Cost per pound of gain, 5.75 cents.								
4th.	653.0	\$3.067	303.5	\$0.378	1,861.0	1,443	78	2.78	4.41
March 14, April 11.	Weight of feed, 956.5 pounds. Cost of feed, \$3,445. Cost per pound of gain, 4.41 cents.								
5th.	837.5	\$1.585	198.0	\$0.246	1,139.5	1,465	22	1.29	8.32
April 11, April 28.	Weight of feed, 535.5 pounds. Cost of feed, \$1,831. Cost per pound of gain, 8.32 cents.								

LOT IV—STEER No. 6.

WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	EAR CORN.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.					
December 20.....						1,079			
“ 27.....	166.0	\$0.780	61.5	\$0.076	338.5	1,083	4	.57	21.40
January 3.....	162.0	.761	62.5	.078	331.5	1,080	—3	— .42	All loss
“ 10.....	147.5	.693	47.5	.059	384.5	1,135	55	7.85	1.36
“ 17.....	158.5	.744	57.5	.071	381.0	1,172	37	5.28	2.20
“ 24.....	176.0	.827	53.5	.066	419.9	1,189	17	2.42	5.25
“ 31.....	171.0	.803	63.5	.079	438.5	1,228	39	5.57	2.26
February 7.....	159.5	.749	77.0	.096	394.0	1,248	20	2.85	4.22
“ 14.....	154.0	.723	75.5	.094	401.5	1,239	—9	—1.23	All loss
“ 21.....	146.5	.688	70.5	.088	424.0	1,281	42	6.00	1.84
“ 28.....	150.0	.705	81.0	.101	417.5	1,287	6	.85	13.43
March 7.....	170.0	.799	77.5	.096	424.0	1,284	—3	.42	All loss
“ 14.....	156.5	.735	68.5	.085	441.5	1,274	—10	—1.42	All loss
“ 21.....	178.0	.836	77.5	.096	490.0	1,359	85	12.14	1.09
“ 28.....	170.0	.799	74.0	.092	478.5	1,394	35	5.00	2.54
April 4.....	135.5	.636	75.5	.094	566.5	1,401	7	1.00	10.42
“ 11.....	122.5	.575	77.0	.096	473.5	1,386	—15	—2.14	All loss
“ 18.....	125.5	.589	83.0	.103	543.5	1,419	33	4.71	2.09
“ 25.....	116.2	.547	93.0	.116	490.5	1,418	—1	— .14	All loss
“ 28.....	35.0	.164	21.5	.026	210.0	1,454	36	12.00	.52
Totals.....	2,800.5	\$13.153	1,297.5	\$1.612	8,048.5	.....	375	2.90	3.93

Number of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.								
1st.	634.0	\$2.978	229.0	\$0.284	1,435.5	1,079	93	3.32	8.50
December 20, January 17.	Weight of feed, 863 pounds. Cost of feed, \$3.262. Cost per pound of gain, 3.5 cents.								
2d.	660.5	\$3.102	269.5	\$0.335	1,653.0	1,239	67	2.46	5.13
January 17, February 14.	Weight of feed, 930 pounds. Cost of feed, \$3.437. Cost per pound of gain, 5.13 cents.								
3d.	623.0	\$2.927	297.5	\$0.370	1,707.5	1,274	35	1.25	9.45
February 14, March 14.	Weight of feed, 920.5 pounds. Cost of feed, \$3.297. Cost per pound of gain, 9.45 cents.								
4th.	605.0	2.846	304.0	\$0.378	2,008.5	1,386	112	4.00	2.87
March 14, April 11.	Weight of feed, 910 pounds. Cost of feed, \$3.224. Cost per pound of gain, 2.87 cents.								
5th.	277.0	\$1.300	197.5	\$0.245	1,244.0	1,454	68	4.00	2.27
April 11, April 28.	Weight of feed, 474.5 pounds. Cost of feed, \$1.545. Cost per pound of gain, 2.27 cents.								

LOT IV—STEER No. 12.
WEEKLY ACCOUNT OF FEED, COST OF FEED AND GAIN.

DATE.	EAR CORN.		CORN FODDER.		Water drunk, pounds.	Weight of steer, pounds.	Gain, lbs.	Average daily gain, pounds	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.					
December 20.....						1,075			
“ 27.....	173.0	\$0.813	64.5	\$0.080	356.5	1,117	42	6.00	2.12
January 3.....	180.5	.848	58.5	.073	312.0	1,116	—1	—14	All loss
“ 10.....	172.5	.810	54.0	.067	372.0	1,129	13	1.85	6.74
“ 17.....	183.5	.862	43.0	.053	306.5	1,147	18	2.57	5.08
“ 24.....	193.0	.907	51.5	.064	378.5	1,175	28	4.00	3.46
“ 31.....	183.5	.862	58.0	.072	350.5	1,195	20	2.85	4.67
February 7.....	166.5	.782	60.5	.075	326.5	1,208	13	1.85	6.59
“ 14.....	160.0	.752	67.5	.084	336.0	1,224	16	2.28	5.22
“ 21.....	143.0	.672	59.5	.074	342.5	1,216	—8	—1.14	All loss
“ 28.....	131.0	.615	66.5	.083	356.5	1,258	42	6.00	1.66
March 7.....	137.0	.643	61.0	.076	322.0	1,255	—3	—42	All loss
“ 14.....	132.0	.622	63.5	.079	386.5	1,262	7	1.00	10.01
“ 21.....	147.0	.690	72.0	.090	347.0	1,290	28	4.00	2.78
“ 28.....	138.5	.650	71.0	.088	349.5	1,291	1	.14	73.80
April 4.....	120.5	.566	65.5	.081	475.0	1,290	—1	—14	All loss
“ 11.....	124.5	.585	60.0	.075	396.0	1,302	12	1.71	5.50
“ 18.....	121.0	.568	73.5	.091	434.0	1,325	23	3.28	2.86
“ 25.....	107.5	.505	75.0	.093	363.5	1,336	11	1.57	5.43
“ 28.....	31.0	.145	20.5	.025	169.5	1,317	—19	—6.33	All loss
Totals.....	2,746.0	\$12.897	1,145.5	\$1.423	6,730.0	.....	242	1.87	5.91

Number of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.								
1st. December 20, January 17.	709.5	\$3.333	220.0	\$0.273	1,347.0	1,075	72	2.57	5.00
	Weight of feed, 929.5 pounds. Cost of feed, \$3.606. Cost per pound of gain, 5 cents.								
2d. January 17, February 14.	703.0	\$3.303	237.5	\$0.295	1,391.5	1,224	77	2.75	4.67
	Weight of feed, 940.5 pounds. Cost of feed, \$3.593. Cost per pound of gain, 4.67 cents.								
3d. February 14, March 14.	543.5	\$2.552	250.5	\$0.312	1,407.5	1,262	38	1.35	7.53
	Weight of feed, 794 pounds. Cost of feed, \$2.864. Cost per pound of gain, 7.53 cents.								
4th. March 14, April 11.	530.5	\$2.491	268.5	\$0.334	1,567.5	1,302	40	1.42	7.06
	Weight of feed, 799 pounds. Cost of feed, \$2.825. Cost per pound of gain, 7.06 cents.								
5th. April 11, April 28.	259.5	\$1.218	169.0	\$0.209	1,017.0	1,317	15	.88	9.51
	Weight of feed, 423.5 pounds. Cost of feed, \$1.427. Cost per pound of gain, 9.51 cents.								

LOT V.

WEEKLY ACCOUNT OF WEIGHT AND GAIN, IN POUNDS.

DATE.	STEER 2.		STEER 3.		STEER 17.		STEER 18.		STEER 20.	
	Weight.	Gain.	Weight.	Gain.	Weight.	Gain.	Weight.	Gain.	Weight.	Gain.
December 20.....	1,148	.....	1,182	.....	988	.....	1,266	.....	1,197	.....
“ 27.....	1,207	59	1,210	28	1,022	34	1,267	1	1,195	-2
January 3.....	1,220	13	1,218	8	1,031	9	1,280	13	1,197	2
“ 10.....	1,226	6	1,235	17	1,045	14	1,295	15	1,232	35
“ 17.....	1,240	14	1,248	13	1,056	11	1,298	3	1,250	18
“ 24.....	1,264	24	1,288	40	1,083	27	1,317	19	1,255	5
“ 31.....	1,275	11	1,290	2	1,109	26	1,365	48	1,290	35
February 7.....	1,292	17	1,298	8	1,102	-7	1,337	-28	1,275	-15
“ 14.....	1,330	38	1,329	31	1,127	25	1,393	56	1,302	27
“ 21.....	1,340	10	1,312	-17	1,145	18	1,411	18	1,322	20
“ 28.....	1,374	34	1,365	53	1,184	39	1,425	14	1,317	-5
March 7.....	1,354	-20	1,375	10	1,193	9	1,443	18	1,339	22
“ 14.....	1,375	21	1,366	-9	1,219	26	1,417	-26	1,360	21
“ 21.....	1,389	14	1,390	24	1,220	1	1,474	57	1,388	28
“ 28.....	1,393	4	1,420	30	1,222	2	1,493	19	1,377	-11
April 4.....	1,376	-17	1,419	-1	1,222	0	1,471	-22	1,403	26
“ 11.....	1,414	38	1,476	57	1,254	32	1,515	44	1,434	31
“ 18.....	1,425	11	1,448	-28	1,255	1	1,475	-40	1,420	-14
“ 25.....	1,440	15	1,475	27	1,303	48	1,533	58	1,438	18
“ 28.....	1,425	-15	1,463	-12	1,306	3	1,533	0	1,432	-6

LOT V.

WEEKLY ACCOUNT OF FEED AND COST OF GAIN.

DATE.	EAR CORN.		CORN FODDER.		Gain of lot, lbs.	Av. daily gain of lot, pounds.	Av. daily gain per head, pounds.	Cost per pound of gain, cents.
	Pounds.	Cost.	Pounds.	Cost.				
December 20.....								
“ 27.....	859.5	\$4.039	459.0	\$0.573	120	17.14	3.42	3.84
January 3.....	1,049.0	4.930	343.0	.428	45	6.42	1.28	11.24
“ 10.....	964.5	4.533	353.5	.441	87	12.42	2.48	5.71
“ 17.....	897.5	4.218	343.5	.429	59	8.42	1.68	7.87
“ 24.....	890.0	4.183	359.5	.449	115	16.42	3.28	4.00
“ 31.....	920.0	4.324	370.0	.462	122	17.42	3.48	3.92
February 7.....	852.5	4.006	453.0	.566	-25	-3.57	-.71	All loss
“ 14.....	863.5	4.058	391.5	.489	177	25.28	5.05	2.56
“ 21.....	871.5	4.096	356.5	.445	49	7.00	1.40	9.26
“ 28.....	955.0	4.439	411.5	.514	135	19.28	3.85	3.70
March 7.....	948.5	4.457	387.5	.484	39	5.57	1.11	12.66
“ 14.....	859.0	4.178	394.5	.498	33	4.71	.94	14.15
“ 21.....	781.5	3.673	439.0	.548	124	17.71	3.54	3.40
“ 28.....	864.0	4.060	400.0	.500	44	6.28	1.25	10.36
April 4.....	798.5	3.752	383.5	.479	-14	-2.00	-.40	All loss
“ 11.....	723.5	3.400	335.5	.481	202	28.85	5.77	1.92
“ 18.....	732.0	3.440	421.5	.526	-70	-10.00	-2.00	All loss
“ 25.....	714.0	3.355	445.0	.556	165	23.71	4.74	2.35
“ 28.....	218.0	1.024	123.5	.154	-30	-4.28	-.85	All loss
Totals.....	15,792.0	\$74.214	7,221.0	\$9.017	1,378	10.68	2.13	6.04

Number of period.	SAME CONDENSED INTO PERIODS OF FOUR WEEKS.							
1st. December 20, January 17.	3,770.5	\$17.720	1,499.0	\$1.871	311	11.10	2.20	6.29
	Weight of feed, 5,269.5 pounds. Cost of feed, \$19,591. Cost per pound of gain, 6.29 cents.							
2d. January 17, February 14.	3,526.0	\$16.571	1,574.0	\$1.966	389	13.89	2.77	4.76
	Weight of feed, 5,100 pounds. Cost of feed, \$18,537. Cost per pound of gain, 4.76 cents.							
3d. February 14, March 14.	3,664.0	\$17.219	1,550.0	\$1.936	256	9.14	1.82	7.40
	Weight of feed, 5,214 pounds. Cost of feed, \$19,155. Cost per pound of gain, 7.4 cents.							
4th. March 14, April 11.	3,167.5	\$14.885	1,608.0	\$2.008	356	12.71	2.54	4.74
	Weight of feed, 4,775.5 pounds. Cost of feed, \$16,893. Cost per pound of gain, 4.74 cents.							
5th. April 11, April 28.	1,664.0	\$7.819	990.0	\$1.236	66	3.88	.77	13.71
	Weight of feed, 2,654 pounds. Cost of feed, \$9,055. Cost per pound of gain, 13.71 cents.							

SUMMARY OF RESULTS FOR EACH LOT.

LOT I.

Total food consumed, 11,503 pounds.
Average food eaten per head (grain 2,965, hay 869), 3,834 pounds.
Total gain in 129 days, 927 pounds.
Average gain per head, 309 pounds.
Average daily gain of the lot, 7.19 pounds.
Average daily gain per head, 2.39 pounds.
Total cost of feed for the lot, \$65.473.
Average cost of food per head, \$21.824.
Average cost per pound of gain, 7.06 cents.
Food eaten for each pound of gain, 11.33 pounds.

It is of interest to compare these results with the results obtained with lot I last year, fed in exactly the same way. The figures which follow are for 140 days, instead of 129 days for the lot above.

The results with lot I last year were:

Average food eaten per head in 140 days (grain 3,309, hay 1,135), 4,444 pounds.
Average cost of food per head in 140 days, \$23.47.
Average gain per head in 140 days, 360.6 pounds.
Average daily gain per head in 140 days, 2.57 pounds.
Average cost per pound of gain, 6.5 cents.
Food eaten per pound of gain, 12.33 pounds.

LOT II.

Total feed eaten (molasses 3,355.59, corn meal 4,526.82, corn fodder 3.957), 11,839.41 pounds.
Average feed eaten per head (molasses 1,118.53, corn meal 1,508.94, corn fodder 1.319), 3,946.47 pounds.
Total gain in 129 days, 561 pounds.
Average gain per head, 187 pounds.
Average daily gain of lot, 4.34 pounds.
Average daily gain per head, 1.44 pounds.
Total cost of feed for lot, \$74.06.
Average cost of feed per head, \$24.68.
Average cost per pound of gain, 13.2 cents.
Food eaten per pound of gain, 23.65 pounds.

LOT III.

Total feed eaten (oil cake 4,916 pounds, hay 5,465 pounds), 10,381 pounds.
Average food eaten per head (oil cake 1,638.6, hay 1,821.6 pounds), 3,460.2 pounds.
Total gain in 129 days, 671 pounds.
Average gain per head, 223.6 pounds.
Average daily gain of lot, 5.2 pounds.
Average daily gain per head, 1.73 pounds.
Total cost of feed, \$78.33.
Average cost of feed per head, \$26.11.
Average cost of feed per pound of gain, 11.6 cents.
Feed eaten per pound of gain, 15.4 pounds.

LOT IV.

Total food eaten (ear corn 13,616.5, corn fodder 6,070.5), 19,687 pounds.
Average food eaten per head (ear corn 2,723.3, corn fodder 1,214.1), 3,937.4 pounds.
Total gain in 129 days, 1,369 pounds.
Average gain per head in 129 days, 273.8 pounds.
Average daily gain of the lot, 10.61 pounds.
Average daily gain per head, 2.12 pounds.
Total cost of feed for the lot, \$71.50.
Average cost of feed per head, \$14.30.
Average cost per pound of gain, 5.22 cents.
Food eaten for each pound of gain, 14.38 pounds.

Comparison with lot III of last year, fed in the same manner, but for 140 days:

Average food eaten per head, 140 days (ear corn 3,113.5, corn fodder 1,135.7), 4,249.2 pounds.
Average cost of food eaten per head 140 days, \$16.192.
Average gain per head in 140 days, 227.2 pounds.
Average daily gain per head in 140 days, 1.62 pounds.
Average cost per pound of gain, 7.12 cents.
Food eaten per pound of gain, 18.70 pounds.

LOT V.

Total food eaten (ear corn 15,792, corn fodder 7,221), 23,013 pounds.
Average food eaten per head (corn 3,158.4, fodder 1,444.2), 4,602.6 pounds.
Total gain, 129 days 1,378 pounds.
Average gain per head, 275.6 pounds.
Average daily gain of lot, 10.68 pounds.
Average daily gain per head, 2.13 pounds.
Total cost of feed, \$83.231.
Average cost of feed per head, \$16.646
Average cost per pound of gain, 6.03 cents.
Food eaten per pound of gain, 16.7 pounds.

Comparison with Lot IV of last year, fed in the same manner, but for 140 days:

Average food eaten per head in 140 days, (corn 3,746.5, fodder 1,295.8), 5,042.3 pounds.
Average cost of food per head in 140 days, \$19.418.
Average gain per head in 140 days, 231 pounds.
Average daily gain per head, 1.65 pounds.
Average cost per pound of gain, 8.4 cents.
Food eaten per pound of gain, 21.8 pounds.

DAILY MEAN TEMPERATURE IN THE YARD AND IN BARN DURING FEEDING PERIOD.

The readings were taken twice daily, at 7 A. M. and 6 P. M. The figures show the mean of the two readings in yard and in the barn. This was noted in order to see if any relation could be traced between low temperature and light gains. Although such relation seems to exist in some cases, no uniformity can be established. More data will be needed on this point before any definite conclusion can be arrived at.

DAILY AVERAGE TEMPERATURE.

DATE.	In yard.	In barn.	DATE.	In yard.	In barn.	DATE.	In yard.	In barn.
December 20.....	15	35	February 2.....	11	29½	March 17.....	24	46
" 21.....	18½	36½	" 3.....	1½	29	" 18.....	30½	45½
" 22.....	18	35	" 4.....	20	32½	" 19.....	41½	52
" 23.....	29½	43	" 5.....	37½	45½	" 20.....	53	58½
" 24.....	24½	41	" 6.....	1	31½	" 21.....	42	55
" 25.....	18	42	" 7.....	7	29½	" 22.....	61	63
" 26.....	-1	31½	" 8.....	17	35	" 23.....	46½	60
" 27.....	12	34	" 9.....	33	42½	" 24.....	34½	53½
" 28.....	20½	40	" 10.....	29	43½	" 25.....	32	50½
" 29.....	28	41½	" 11.....	34½	45½	" 26.....	43½	55
" 30.....	26	44½	" 12.....	35	49	" 27.....	40½	52
" 31.....	23	44½	" 13.....	39½	49	" 28.....	42	54
January 1.....	25	44	" 14.....	20	45	" 29.....	58	59
" 2.....	23	46	" 15.....	25	42½	" 30.....	67	67
" 3.....	29½	45½	" 16.....	32	46½	" 31.....	62	69
" 4.....	26½	51½	" 17.....	37	50	April 1.....	58	64½
" 5.....	28½	49	" 18.....	37½	51	" 2.....	63½	67½
" 6.....	27½	44½	" 19.....	44½	53½	" 3.....	74	78½
" 7.....	27	46	" 20.....	38½	51	" 4.....	62	69
" 8.....	33	45½	" 21.....	35½	50	" 5.....	74	72½
" 9.....	38½	48½	" 22.....	35	50	" 6.....	77½	78
" 10.....	18½	41	" 23.....	42	53½	" 7.....	78	78
" 11.....	31	46	" 24.....	36	52	" 8.....	51	60½
" 12.....	15	42	" 25.....	37½	52	" 9.....	46	56
" 13.....	14	38	" 26.....	47½	54	" 10.....	51½	59½
" 14.....	14½	38½	" 27.....	27½	48½	" 11.....	70½	70½
" 15.....	15	37	" 28.....	28½	46½	" 12.....	58	68
" 16.....	17	38½	March 1.....	38	49½	" 13.....	44½	58
" 17.....	24½	41½	" 2.....	43½	54½	" 14.....	43½	54
" 18.....	17	39½	" 3.....	18	42	" 15.....	53	59
" 19.....	22	40	" 4.....	24	42½	" 16.....	55	61½
" 20.....	30	45	" 5.....	38½	48½	" 17.....	63½	67
" 21.....	30½	46½	" 6.....	39	51	" 18.....	62	67
" 22.....	35½	48½	" 7.....	38	51	" 19.....	46½	59½
" 23.....	34	49½	" 8.....	47	57½	" 20.....	40	54
" 24.....	40½	51½	" 9.....	51	59	" 21.....	45½	56
" 25.....	32½	48	" 10.....	54½	62	" 22.....	50½	59
" 26.....	11½	37	" 11.....	48½	58½	" 23.....	46	57½
" 27.....	12½	34½	" 12.....	48½	62	" 24.....	70½	69
" 28.....	16	36	" 13.....	38½	53½	" 25.....	59	61
" 29.....	12½	33	" 14.....	27	47½	" 26.....	48½	59½
" 30.....	18	37½	" 15.....	22½	42½	" 27.....	55	62
" 31.....	23	41½	" 16.....	27½	43½	" 28.....	62	65
February 1.....	-1½	27½						

RELATION OF FEED AND WATER TO GAIN.

The following table shows, in a condensed form, the amount and kind of feed eaten by each steer, and the amount of water drunk by each during the experiment, and the relation that these bear to the gain, and to each other:

LOT I—FEED: BALANCED RATION AND HAY.

Number of steer.	Total grain eaten.	Total fodder eaten.	Total feed eaten.	Total water drunk.	Total gain.	Pounds grain per pound of gain.	Pounds fodder per pound of gain.	Pounds feed per pound of gain.	Pounds water per pound of gain.	Pounds water to one pound of food.
3.....	3,413.5	1,023.5	4,437.0	11,459.5	339	10.09	3.01	13.10	33.8	2.6
11.....	2,894.0	877.0	3,771.0	9,720.0	290	9.98	3.02	13.00	33.5	2.6
15.....	2,599.0	696.0	3,295.0	9,274.0	298	8.05	2.87	11.05	31.1	2.4
Averages.....	2,968.8	865.5	3,834.3	10,151.1	309	9.37	2.80	12.38	32.8	2.5

LOT II—FEED: CORN MEAL, MOLASSES, AND CORN FODDER.

Number of steer.	Molasses eaten.	Corn meal eaten.	Fodder eaten.	Total feed.	Total water drunk.	Total gain.	Pounds molasses per lb. of gain.	Pounds corn meal per lb. of gain.	Pounds fodder per lb. of gain.	Pounds feed per lb. of gain.	Pounds water per lb. of gain.	Pounds water to one lb. of food.
13.....	1,091.5	1,468.2	1,271.5	3,831.2	8,861.5	109	10.01	13.46	11.66	35.14	81.29	2.31
14.....	935.9	1,335.8	1,319.0	3,590.7	9,060.0	187	5.00	7.14	7.05	19.19	48.44	2.52
16.....	1,328.1	1,722.7	1,866.5	4,417.3	10,475.0	265	5.00	6.50	5.15	16.66	39.52	2.37
Av'rag's,	1,118.5	1,508.9	1,319.0	3,946.4	9,465.5	187	6.67	9.03	7.95	23.66	56.41	2.40

LOT III—FEED: OIL CAKE AND HAY.

Number of steer.	Total oil cake eaten.	Total hay eaten.	Total feed eaten.	Total water drunk.	Total gain.	Pounds grain per pound of gain.	Pounds hay per pound of gain.	Pounds feed per pound of gain.	Pounds water per pound of gain.	Pounds water to one pound of food.
1.....	1,444	1,985	3,429	12,269	250	5.77	7.94	13.71	49.07	3.57
7.....	1,463	1,720	3,183	10,756	140	10.45	12.28	22.73	76.82	3.37
9.....	2,009	1,760	3,769	12,312	281	7.14	6.26	13.41	43.81	3.26
Averages.....	1,638.6	1,821.6	3,460.3	11,779	223.6	7.78	8.82	16.61	56.56	3.40

LOT IV—FEED: EAR CORN AND CORN FODDER.

Number of steer.	Total corn eaten.	Total fodder eaten.	Total feed.	Total water drunk.	Total gain.	Pounds grain per pound of gain.	Pounds fodder per pound of gain.	Pounds feed per pound of gain.	Pounds water per pound of gain.	Pounds water to one pound of food.
4.....	2,602.0	1,176.0	3,778.0	6,882.0	248	10.49	4.74	15.23	27.75	1.82
5.....	3,072.0	1,335.5	4,407.5	7,954.0	300	10.24	4.45	14.69	26.51	1.80
6.....	2,800.5	1,297.5	4,098.0	8,048.5	375	7.46	3.46	10.92	21.46	1.96
10.....	2,396.0	1,116.0	3,512.0	6,345.0	204	11.74	5.47	17.21	31.10	1.80
12.....	2,746.0	1,145.5	3,891.5	6,730.0	242	11.35	4.73	16.08	27.80	1.72
Averages.....	2,723.3	1,214.1	3,937.4	7,191.9	273.8	10.25	4.57	14.82	26.92	1.82

LOT V—FEED: EAR CORN AND CORN FODDER, IN YARD.

	Total corn eaten.	Total fodder eaten.	Total feed.	Total gain.	Pounds grain per pound of gain.	Pounds fodder per pound of gain.	Pounds feed per pound of gain.
Five steers.....	15,792.0	7,221.0	23,013.0	1,378.0	11.46	5.24	16.70
Average per head.....	3,158.4	1,444.2	4,602.6	275.6	11.46	5.24	16.70

PROFIT AND LOSS.

The profit-and-loss account of the 19 steers stands as follows:

LOT I—Dr.

To cost of three steers @ \$37.36.....	\$112 08
To feed from arrival to beginning of experiment.....	4 77
To feed during experiment.....	65 47
To freight, yardage, and hay ..	4 91
	<u>\$187 23</u>

Cr

By three steers, 4,120 pounds, @ \$5.30 per cwt.....	218 36
Profit.....	<u>\$31 13</u>

LOT II—Dr.

To cost of three steers @ \$37.36.....	\$112 08
To feed from arrival to beginning of experiment.....	5 62
To feed during experiment.....	74 06
To freight, yardage, and hay ..	4 91
	<u>\$196 67</u>

Cr.

By three steers, 3,870 pounds. @ \$4.75 per cwt.....	183 82
Loss.....	<u>\$12 85</u>

LOT III—*Dr.*

To cost of three steers @ \$37.36.....	\$112 08	
To feed from arrival to beginning of experiment.....	4 24	
To feed during experiment.....	78 83	
To freight, yardage, and hay.....	4 91	\$199 56

Cr.

By three steers, 3,850 pounds, @ \$4.90 per cwt.	188 65	
Loss.....	\$10 91	

LOT IV—*Dr.*

To cost of five steers @ \$37.36.....	\$186 80	
To feed from arrival to beginning of experiment.....	8 03	
To feed during experiment.	71 50	
To freight, yardage, and hay	8 19	\$274 52

Cr.

By five steers, 6,600 pounds, @ \$5.10 per cwt.	336 60	
Profit.	\$62 08	

LOT V—*Dr.*

To cost of five steers @ \$37.36.....	\$186 80	
To feed from arrival to beginning of experiment	8 21	
To feed during experiment.	83 23	
To freight, yardage, and hay	8 19	\$286 43

Cr.

By five steers, 6,810 pounds, @ \$5.15 per cwt.....	350 71	
Profit.....	\$64 28	

SALE OF THE CATTLE.

The cattle were sold to Swift & Co., of Kansas City, on April 29, 1893, in the Kansas City stock yards. Mr. A. W. Seely, the buyer for this packing house, put the prices given below on the several lots, without knowing how the cattle had been fed. Mr Seely is an excellent judge of cattle, having had long experience as a buyer. Each lot was put in a pen by itself and sold upon its merits. After a careful examination, he put the following prices on them:

LOT I, fed on balanced ration.. . . .	\$5 30 per hundred.
II, on corn meal and molasses.	4 75 "
III, fed on oil cake.....	4 90 "
IV, fed ear corn indoors.....	5 10 "
V, fed ear corn outdoors	5 15 "

The condition of the cattle and the market on that day fully justified these prices.

The prices are a measure of the quality of each lot.

Lot I made by far the best appearance. They were round, sleek, and

smooth, though not as fleshy as they might have been made had the feeding continued longer.

Lot II, the corn meal and molasses lot, was the poorest of them all. They were not in first-class market condition, though perhaps they might be said to average fairly with most of the steers sent to market.

Lot III, fed on oil cake, was somewhat better than lot II.

Lot IV, fed on ear corn in the barn, was in fair market condition.

Lot V, fed on ear corn outdoors, was in good market condition and made a better appearance than the indoor lot fed the same way.

The preceding tables show that lot V, while making practically the same gain as lot IV during the experiment, ate during the 129 days 2,172 pounds corn and 1,150 pounds fodder more than lot IV.

This amount of feed, then, represents what is required to meet the vicissitudes of cold weather under outdoor management. But the weights show that the outdoor lot was heavier and sold for 5 cents more per 100 pounds than the indoor lot. The explanation of this lies in the fact that during the preliminary feeding, while the indoor steers were being accustomed to the stable, this lot gained 423 pounds more than the indoor lot, on practically the same amount of feed, and they kept this advantage to the end, although after the experiment began the two lots gained at about the same rate. This explains why lot V was heavier than lot IV when sold, and, being heavier, they brought a slightly higher price.

IN COMPARING THE LOTS,

It will be seen that the steers fed outdoors show the most profit, although the difference between them and the indoor corn-fed lot is but \$2.20. This difference would still be greater if the cost of labor in tending the indoor steers was taken into the account, which, of course, it must be in practice on the ranch. The question would stand a little differently if the indoor steers had been accustomed to confinement. As stated above, they gained at the same rate as the outdoor lot on less feed. At the cost of feed here given, the 2,172 lbs. of corn which they ate less than the others would amount to \$10.20, and the 1,150 lbs. of fodder to \$1.43, total, \$11.63, which may be presumed to be saved by the shelter. If, now, they had not needed to go through the training and worry incidental to confinement when unaccustomed to it, the preliminary feeding would have been unnecessary, and the presumption is that the outdoor lot would not then have gotten the start which put them ahead at the sale. The value of the feed saved, \$11.63, would then have shown in favor of the indoor lot; but it would, on the other hand, in part be offset by the greater labor of tending them.

It should be noted in this connection, that on the whole last winter was favorable to outdoor feeding; and further, that the shed provided for lot V afforded perhaps more shelter than farmers usually give their steers.

It follows from this as a natural corollary that good shelter is a decided advantage in feeding; but it should be provided in such a way that the steers are not put under restraints to which they are unaccustomed.

Now, comparing the four indoor lots with each other, the profit-and-loss account tells the tale. The three steers in lot I make a profit of \$31.13, or \$10.37 per head. The five steers in lot IV made a profit of \$62.08, or \$12.41 per head. This leaves a difference of \$2.07 per head in favor of the corn-fed lot. But lot I gained the most, made the best beef, and brought the highest price in the market. The difference, then, in favor of the corn-fed lot lies wholly in the price of the feed. The feed eaten by lot I cost \$21.82 per head and the feed eaten by lot IV cost only \$14.30 per head. Here is a difference of \$7.52 per head that the corn cost less than the mixed feed. But the gains made and prices realized show the merit of the mixed feed in comparison with corn, and whenever the conditions are such that corn costs more or oil cake less than here estimated, the difference would likely be in favor of the mixed feed. If the corn had cost 38 cents a bushel instead of 33 cents, the profits on the two lots would have been alike.

Lot II, fed on molasses and corn meal, was fed at a loss of \$12.85, or \$4.28 per head. It proves decidedly that molasses is neither a good feed nor in the line of economy.

Lot III, fed on oil cake, was fed at a loss of \$10.91, or \$3.63 per head. It shows that at the ordinary price of oil cake it cannot be used as an exclusive feed with profit.

SHRINKAGE IN SHIPPING.

On being weighed when sold in Kansas City, it was found that the several lots had shrunk during transit as follows:

LOT I	18.3 pounds per head.
II	12.3 " "
III	9.3 " "
IV	27.2 " "
V	68.0 " "

SLAUGHTER TEST.

The cattle were slaughtered at Swift & Co.'s packing house. At no little trouble and expense to this firm, we have secured the details which follow of the slaughtering. The firm made no charge for the trouble they were put to in the matter, although the floor was cleared and no other cattle were slaughtered while these 19 steers were put through and all the details secured. The accompanying table gives these details of the slaughter test. Each steer was weighed just before he was slaughtered, in order that the shrinkage might be more accurately ascertained.

Attention is called to the weight of the fat in each lot. It will be seen

that lot III shows less fat than any of the others. This bears out the theory that a highly nitrogenous feed is not a fat producer. The average weight of fat per head in each lot is as follows:

Lot I.....	96.6 pounds.
II.....	60.6 “
III.....	48.3 “
IV.....	66.1 “
V.....	84.5 “

COMPARATIVE SLAUGHTER TEST OF THE 19 STEERS (IN

	LOT I. NUMBER OF STEER.				LOT II. NUMBER OF STEER.			
	3.	11.	15.	Totals.	16.	13.	14.	Totals.
Last weight at Station, April 28, 1893.....	1,527	1,365	1,283	4,175	1,427	1,230	1,250	3,907
Weight on arrival at Kansas City stock yards, April 29, 1893.....				4,120				3,870
Weight just before slaughter, April 30, 1893.....	1,460	1,300	1,220	3,980	1,360	1,150	1,160	3,670
Detail weights from slaughter:								
Blood.....	46.00	44.00	39.00	129.00	40.00	42.00	42.50	124.50
Head (tongue out).....	33.00	33.00	37.50	103.50	34.50	30.00	29.50	94.00
Hide.....	75.00	77.00	72.00	224.00	85.00	70.00	79.00	234.00
Tail.....	1.50	1.56	1.66	4.72	1.37	1.12	1.25	3.74
Fats.....	110.00	99.00	81.00	290.00	66.50	63.50	52.00	182.00
Rough trimmings.....	2.75	3.00	2.75	8.50	5.00	4.00	3.00	12.00
Tongue and gullet.....	12.00	12.50	11.50	36.00	12.50	11.50	9.50	33.50
Heart.....	5.00	4.00	3.25	12.25	4.00	3.50	3.50	11.00
Aorta, veins, and auricles.....	2.12	1.50	1.62	5.24	2.50	2.00	2.50	7.00
Liver.....	15.00	16.00	14.00	45.00	13.00	11.00	10.00	34.00
Spleen.....	2.00	1.62	1.37	4.99	1.87	1.87	2.00	5.74
Esophagus.....	1.06	.87	.93	2.86	.87	1.00	.93	2.80
Lungs and windpipe.....	10.00	7.75	7.50	25.25	8.50	7.00	8.50	24.00
Front legs.....	10.00	10.00	10.00	30.00	10.00	9.00	9.00	28.00
Hind legs.....	10.00	10.00	10.00	30.00	10.00	9.00	9.00	28.00
Throat sweet breads (gland).....	.68	.62	.37	1.67	.50	.75	.56	1.81
Liver sweet breads (gland).....	1.12	.93	.75	2.80	1.18	.81	.68	2.67
Entrails, full:								
Faunch.....	106.00	100.00	98.00	304.00	119.00	62.00	74.00	255.00
Peck and reed.....	32.00	30.00	19.00	81.00	23.00	17.00	25.00	65.00
Guts, entire.....	89.00	69.00	70.00	228.00	70.00	55.00	52.00	177.00
Gall cyst, full.....	1.25	.81	1.00	3.06	1.12	1.81	1.00	3.43
Beef, green weight.....	915	802	773	2,490	840	724	720	2,284
Beef, 72 hours old.....	902	793	760	2,460	826	711	706	2,243
Detail, fat weights:								
Caul fat (leaf).....	24.00	26.00	20.00	70.00	20.00	17.00	12.00	49.00
Ruffle fat (gut).....	25.00	20.00	13.00	58.00	10.00	13.50	10.00	33.50
Chip fat (gut).....	31.00	21.00	14.00	66.00	14.50	12.00	13.00	39.50
Trimming fat (gut).....	30.00	32.00	34.00	96.00	22.00	21.00	17.00	60.00
Entrails, empty:								
Faunch.....	22.00	20.00	17.00	59.00	19.00	15.00	15.00	49.00
Peck and reed.....	15.00	13.00	11.00	39.00	13.00	13.00	11.50	37.50
Guts, entire.....	4.75	8.50	8.50	21.75	9.00	9.25	11.00	29.25

POUNDS), FURNISHED BY SWIFT & CO., KANSAS CITY, MO.

LOT III. NUMBER OF STEER.				LOT IV NUMBER OF STEER.						LOT V. NUMBER OF STEER.					
7.	9.	1.	Totals.	10.	4.	12.	6.	5.	Totals	2.	17.	18.	20.	8.	Totals.
1,211	1,869	1,298	3,878	1,152	1,848	1,317	1,454	1,465	6,736	1,425	1,806	1,532	1,432	1,463	7,159
			3,850						6,600						6,810
1,160	1,260	1,260	3,680	1,070	1,280	1,260	1,330	1,370	6,310	1,320	1,180	1,430	1,810	1,320	6,560
40.50	50.00	47.50	138.00	39.00	32.50	40.00	38.00	41.00	190.50	43.50	33.50	44.50	43.00	34.50	199.00
30.00	32.00	33.50	95.50	27.00	30.00	32.00	33.00	32.00	154.00	30.50	28.00	30.00	33.50	31.50	153.50
68.00	84.00	83.00	235.00	59.00	78.00	85.00	82.00	80.00	379.00	77.00	65.00	87.50	75.50	79.00	384.00
1.50	1.00	1.50	4.00	1.00	2.00	1.05	2.00	1.50	8.00	1.62	1.50	1.25	1.75	1.50	7.62
50.00	52.00	43.00	145.00	51.00	50.00	81.00	77.50	71.00	330.50	71.00	76.00	106.00	77.50	92.00	422.50
2.00	4.00	3.50	9.50	3.00	2.00	2.00	3.00	2.00	12.00	3.50	3.50	4.00	3.50	3.50	18.00
11.00	11.00	12.00	34.00	9.00	11.00	11.00	10.00	11.00	52.00	10.50	10.50	12.00	11.00	13.00	57.00
3.50	4.00	3.75	11.25	3.12	3.50	3.75	2.37	3.50	16.24	3.25	3.25	3.25	3.25	3.25	16.25
2.75	2.75	2.25	7.75	2.00	2.00	1.87	2.37	3.00	11.24	2.75	2.00	2.00	2.75	2.25	11.75
				10.00	10.00	12.00	12.00	12.00	56.00	13.00	11.00	14.00	14.00	13.50	65.50
1.37	2.50	1.62	5.49	2.50	2.00	2.50	1.87	2.37	11.24	2.37	2.12	2.37	2.00	2.12	10.98
.93	1.25	1.56	3.74	.75	1.12	.87	1.00	1.00	4.74	1.75	1.00	1.12	1.00	1.00	5.87
6.00	8.00	8.75	22.75	8.50	8.00	8.50	9.25	9.50	43.75	7.75	6.75	8.12	8.00	8.50	39.12
8.00	10.00	8.00	26.00	7.00	8.00	9.00	9.00	10.00	43.00	9.00	10.00	10.00	10.00	9.00	48.00
8.00	10.00	8.00	26.00	7.00	8.00	9.00	9.00	10.00	43.00	9.00	8.00	9.50	10.00	8.00	44.50
.56	.68	.50	1.74	.75	.50	1.00	.75	.75	3.75	.37	.50	.40	.40	.50	2.17
.75	1.25	1.62	3.62							.75	.56	1.00	.62	.68	3.61
71.00	97.00	103.00	271.00	101.00	103.00	105.00	132.00	120.00	561.00	103.00	101.00	95.00	104.00	85.00	488.00
30.00	30.00	36.00	96.00	26.00	24.00	25.00	35.00	33.00	143.00						
47.00	57.00	60.00	164.00	60.00	60.00	62.00	68.00	70.00	320.00	60.00	59.00	88.00	63.00	70.00	340.00
1.00	1.06	1.43	3.49	.87	1.87	1.18	.68	1.12	5.72	1.75	.75	1.37	1.25	1.37	6.49
730	763	740	2,233	630	802	760	796	852	3,840	816	727	864	815	820	4,042
717	750	726	2,193	620	738	747	781	839	3,775	801	716	851	800	812	3,980
17.00	13.00	10.00	40.00	13.00	17.00	20.00	16.00	23.00	89.00	22.00	20.00	30.00	21.00	25.50	118.50
7.00	10.50	7.00	24.50	8.00	11.00	14.00	22.00	27.00	82.00	17.00	12.00	24.00	14.50	20.00	87.50
11.50	13.00	11.00	35.50	15.00	14.00	17.00	11.50	18.00	75.50	12.00	26.00	27.00	16.00	20.50	101.50
14.50	15.50	15.00	45.00	15.00	18.00	30.00	28.00	23.00	114.00	20.00	18.00	25.00	26.00	26.00	115.00
17.00	20.00	17.00	54.00	17.00	20.00	20.00	22.00	21.00	100.00	22.00	19.00	22.00	20.00	21.00	104.00
17.00	11.00	16.00	44.00	10.00	14.00	13.00	13.00	13.00	63.00						
13.00	14.00	11.00	38.00	13.00	13.00	12.00	14.00	13.00	65.00	14.00	14.00	16.00	17.00	17.00	78.00

ILLUSTRATIONS.

After the carcasses had been in the cooler for 72 hours, a photograph was taken of the rib roast of each carcass; two of these are reproduced from each of lots I, II, and III. The object was to see if there was any difference in the marbling that might be assigned to the feed. This is, however, a difficult matter to determine, because of the variation in this respect between steers of the same lot. Six cuts are reproduced, in order to show how the marbling appeared. It is a well-known fact that the quality of the meat depends more upon individual characteristics than upon any other factor. We know also that in the case of pork the feed may influence its quality; but in the case of beef, the extent to which feed may influence the marbling and other qualities is as yet an unsettled point.

SUMMARY OF RESULTS.

1. The steers fed on the balanced ration gained more rapidly than any of the others, they were in better market condition and brought a higher price than any of the others, and they consumed less food per pound of gain than the others, all of which confirms the results of last year. But these factors do not necessarily imply the most profit, as the account proves.

2. A mixture of molasses and corn meal proved to be a very inferior fattening material.

3. The exclusive diet of oil cake did not yield as good results as either the balanced ration or corn. The animal organism appears to be unable to make use of so highly concentrated nitrogenous feed to good advantage.

4. Ear corn fed in the barn did not produce as good gains as did the balanced ration fed under the same conditions, but, being a cheaper feed, it proved to be slightly more profitable.

5. The steers fed ear corn out of doors gained at practically the same rate during the experiment as those fed ear corn indoors, but they ate 2 pounds corn and 1.5 pounds fodder more per pound of gain than did the indoor steers. This confirms the results of last year.

6. Steers which are tied up in the barn, if not accustomed to this method of handling, will fret under the restraint for several weeks, during which time the gain is but light for the feed eaten. From this we conclude that good shelter is favorable to economical feeding, but it should not put the steers under restraints to which they are unaccustomed.

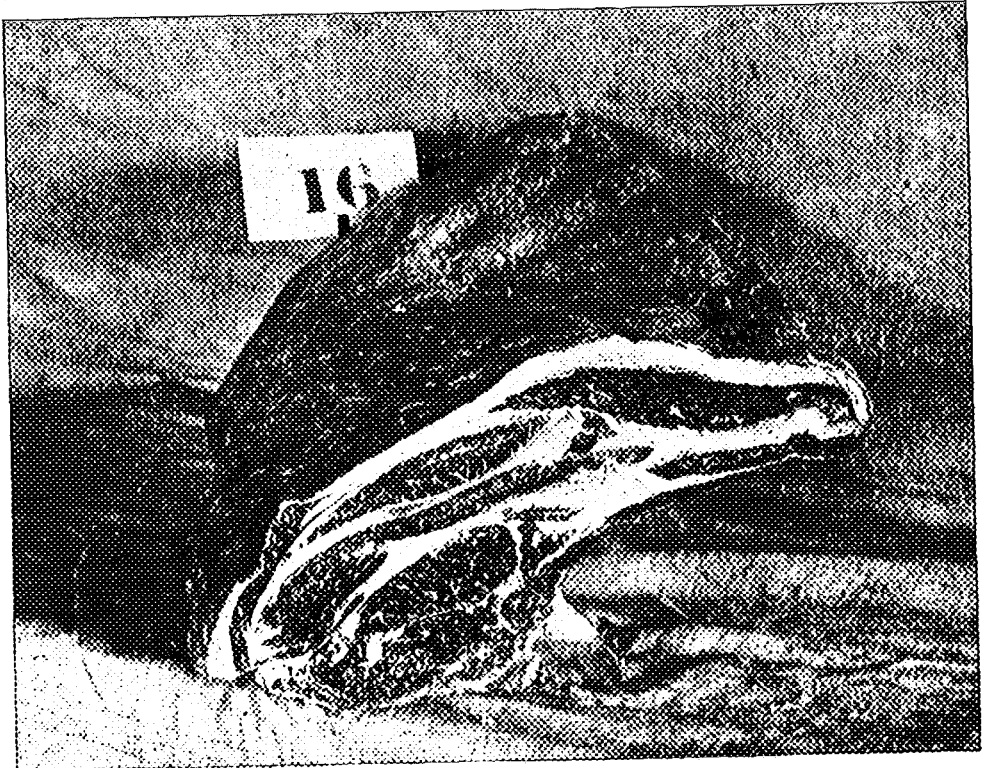
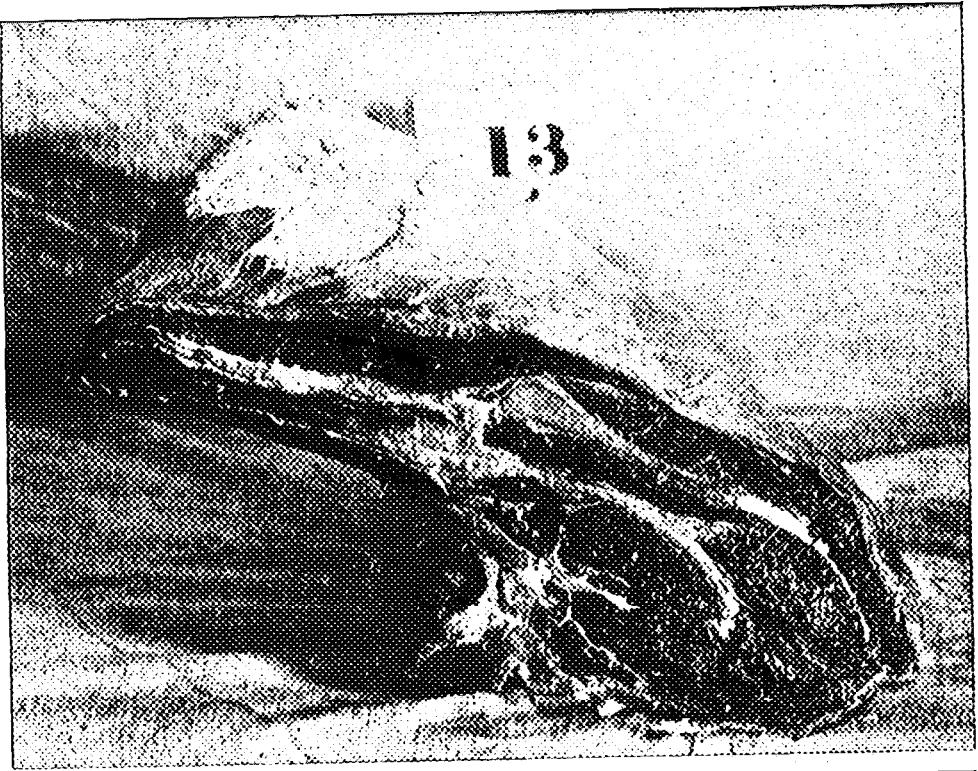
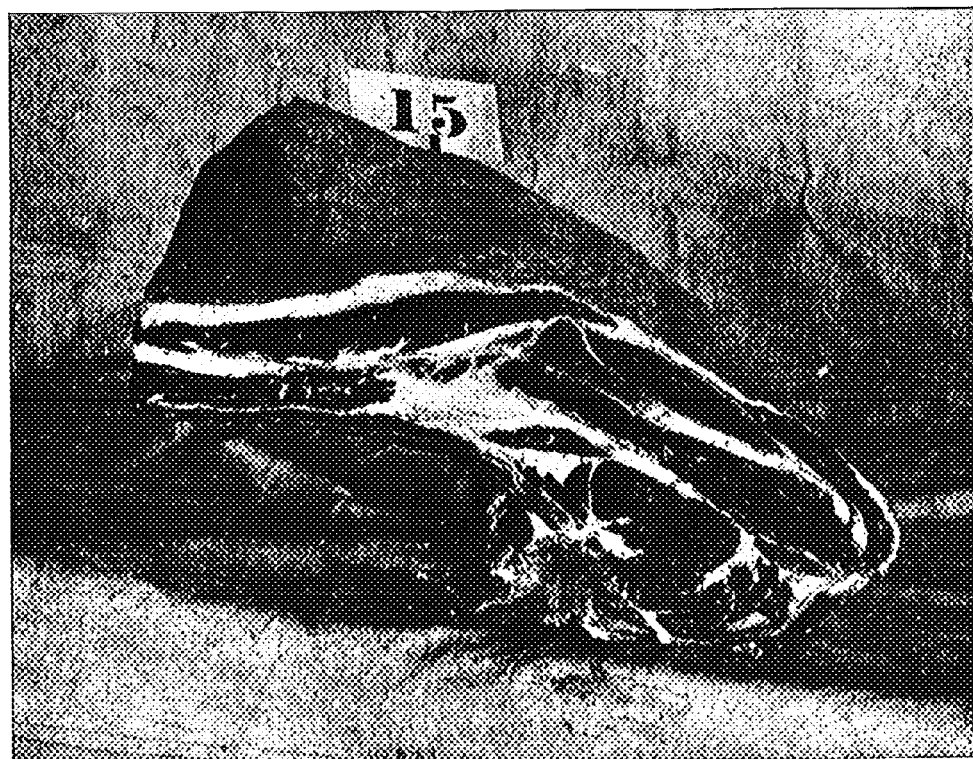
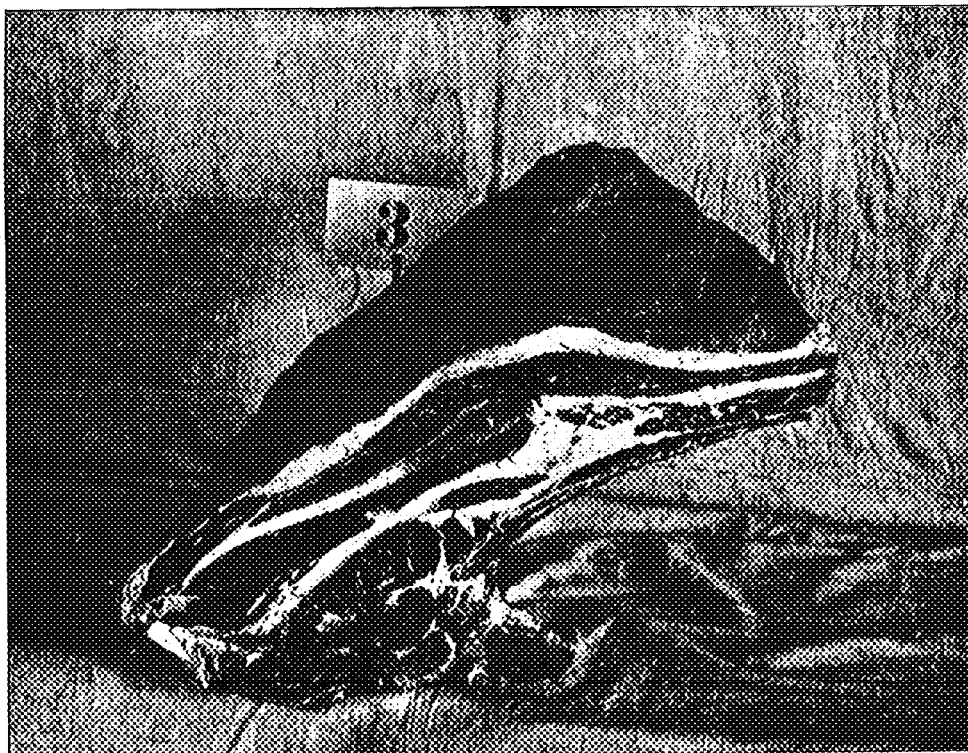


PLATE V.

LOT II.

FARM DEPARTMENT.



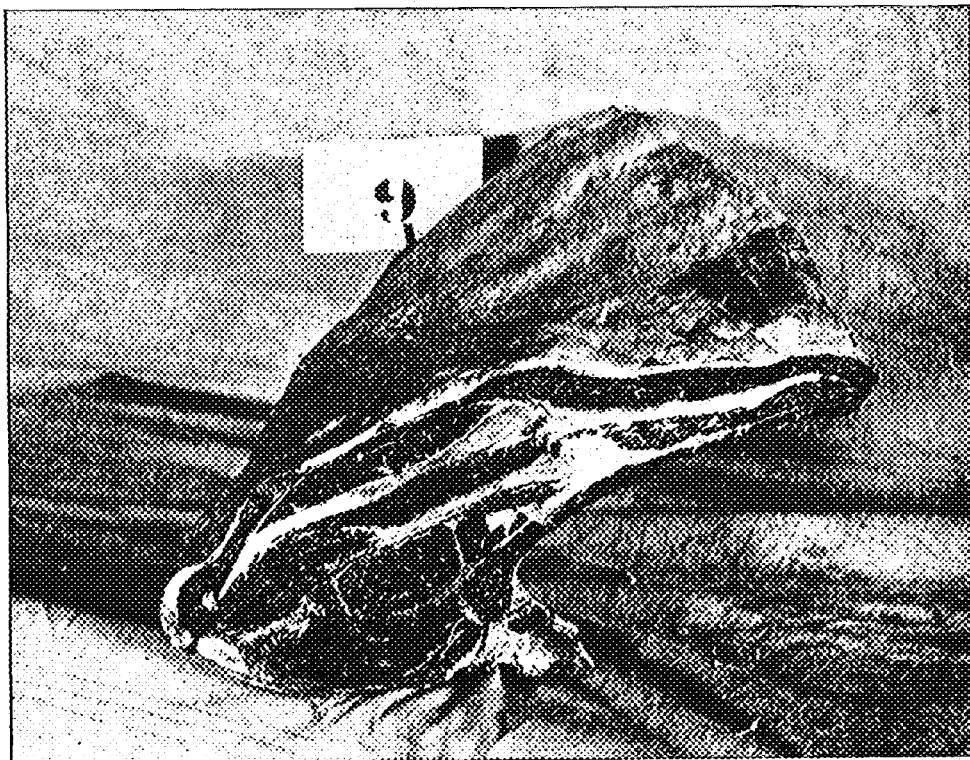


PLATE VI.

LOT III.

FARM DEPARTMENT.