

Table 11
Production and disappearance of forage, weeds, and mulch in 1962, yields given as pounds air-dry weight per acre.

Pasture no.	1	2	3	4, 5, & 6 (av.)	9	10	11
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Ordinary uplands—Forage	3,470	3,104	4,310	4,364	2,163	3,005	2,959
Weeds	456	558	139	192	333	267	170
Mulch	2,919	1,823	3,682	2,761	(a)	(a)	(a)
Limestone breaks—Forage	2,643	1,984	2,890	3,150	1,922	2,670	1,960
Weeds	386	388	176	348	675	712	143
Mulch	1,605	849	2,280	3,189	(a)	(a)	(a)
Disappearance (an index of grazing use)							
Ordinary uplands—Forage	1,528	1,993	955	1,587	1,060	1,417	1,402
Weeds	306	258	(b)	(b)	139	139	99
Mulch	992	466	126	571	(a)	(a)	(a)
Limestone breaks—Forage	867	961	179	833	891	754	631
Weeds	82	134	53	326	205	509	(b)
Mulch	287	(b)	(b)	279	(a)	(a)	(a)
Remainder (amount left as cover at close of grazing season)							
Ordinary uplands—Forage	1,942	1,291	3,355	2,477	1,103	1,594	1,557
Weeds	156	300	139	192	194	128	80
Mulch	1,927	1,417	3,556	2,190	(a)	(a)	(a)
Limestone breaks—Forage	1,776	1,023	2,711	2,317	1,031	1,916	1,329
Weeds	304	254	123	122	470	293	143
Mulch	1,318	849	2,580	2,910	(a)	(a)	(a)
Gross decreases and gross increases given as % of total population, and estimated range condition given as %							
Ordinary uplands—Gross decreases	46	36	45	47	39	63	65
Gross increases	35	36	32	36	31	18	19
Range condition	54	42	50	51	50	75	80
Limestone breaks—Gross decreases	58	49	65	60	15	65	74
Gross increases	24	29	24	23	70	21	18
Range condition	75	69	84	78	57	87	91

a. No mulch in burned pastures.
b. No measurable disappearance.

The Value of Supplemental Cobalt for Heifers on Fattening Rations, 1961-62 (Project 253-6).

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The 40 heifer calves, 10 per lot, used in this experiment were good to choice Herefords from near Fort Davis, Texas, and were assigned on a random weight basis to their treatments.

All lots received all the prairie hay they would consume; ground shelled corn was gradually increased until they were on full feed; then the ground corn was self-fed. Soybean oil meal was fed once daily in a separate bunk, ground limestone was added to the soybean oil meal to supply 1/10 pound daily per head, and vitamin A concentrate was added to the soybean oil meal to supply 10,000 I.U. daily per head. Cobalt sulfate was added to the soybean oil meal of two of the lots to supply 1 mg. of cobalt daily per head.

Results of the trial are reported in Table 12. There were no significant differences among the lots, although a small increase in gain and carcass weight occurred in the cobalt-supplemented lots.

Table 12
The value of supplemental cobalt in the ration of fattening heifers, December 4, 1961, to October 11, 1962—311 days.

Lot no.	19	20	21	22
Treatment	Control	Control	Cobalt	Cobalt
No. heifers per lot	10	10	10	10
Initial wt. per heifer, lbs.	379	379	378	381
Daily gain per heifer, lbs.	1.77	1.84	1.94	1.91
Daily ration per heifer, lbs.:				
Ground corn, self-fed	10.98	11.23	11.69	11.99
Soybean meal ¹	1.53	1.54	1.53	1.58
Prairie hay	4.05	4.14	4.31	4.28
Salt, free choice				
Feed per cwt. gain, lbs.:				
Ground corn	618.70	610.70	602.70	626.94
Soybean meal	86.27	83.65	79.07	82.40
Prairie hay	228.35	224.90	222.47	223.85
Feed cost per cwt. gain ¹	\$18.54	\$18.25	\$17.88	\$18.53
Carcass data:				
Average carcass wt., lbs.	597	594	627	619
Average packer yield, %	64.1	62.5	64	63.4
Average USDA grade ⁴	13.7	13.6	14.2	13.2
Average yield grade ⁵	4.6	4.6	4	3.9
Average marbling score ⁶	5.1	5.3	4	5.2

1. Cobalt was mixed with the soybean meal fed to lots 21 and 22 in the form of CoSO₄ · 7H₂O at the rate of 1 mg. of cobalt daily.

2. The soybean meal of all lots was fortified to furnish per head daily a tenth of a pound of ground limestone and 10,000 I.U. of vitamin A.

3. Feed prices may be found on inside back cover.

4. Average grade determined as follows: High choice, 15; average choice, 14; low choice, 13; high good, 12.

5. Score from 1 to 6 on basis of yield, with 1 being the highest yield in closely trimmed boneless retail cuts.

6. Average marbling determined as follows: Moderately abundant, 3; slightly abundant, 4; moderate, 5; modest amount, 6.