

Table 34
Feedstuff analyses.

	Moisture, %	Dry matter, %	Protein, %	Ash, %	Crude fiber, %	Ether extract, %	N P.E., %	Crystals, mg./lb.
Colby:								
Sorghum silage	71.80	28.20	1.82	2.61	5.07	0.84	17.86	8
Alfalfa hay	5.00	95.00	15.50	6.41	33.32	1.46	38.37	14
Sorghum grain	11.99	88.01	8.19	2.86	4.07	5.16	67.79	...
Garden City:								
Sorghum silage	68.56	31.44	1.33	2.00	2.17	0.48	24.46	1
Alfalfa hay	5.00	95.00	14.28	9.19	29.97	1.52	39.94	38
Sorghum grain	9.90	90.10	7.35	2.79	2.34	3.20	72.42	...
Manhattan:								
Sorghum silage	68.49	31.51	1.95	1.54	7.38	0.75	19.89	2
Alfalfa hay	5.00	95.00	11.98	3.11	35.67	1.19	43.05	10
Sorghum grain	10.65	89.35	8.14	2.58	3.48	4.50	70.65	...
Mound Valley:								
Sorghum silage	75.96	24.04	1.80	1.61	3.95	0.39	16.39	2
Alfalfa hay	5.00	95.00	13.67	5.79	31.01	1.41	43.12	7
Sorghum grain	7.99	92.01	7.73	2.23	3.41	4.40	74.24	...

(44)

Nutritive Value of Forages as Affected by Soil and Climatic Differences (Project 430).

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This is a progress report on the second test to determine whether there is a difference in the performance of beef steers due to location, soil, climate, rainfall and/or feed produced in four areas of Kansas: Colby, Garden City, Manhattan, and Mound Valley. Forty-eight Hereford steer calves averaging 454 pounds each were divided into four groups of 12. One lot was assigned to each location. Sorghum silage from the same variety (FSLA) and second cutting of alfalfa plus plain salt were used in the wintering phase. Feedstuff analyses are shown in Table 36, and results of the wintering phase, in Table 35. Silage has been removed from the ration and sorghum grain added. The animals will be fattened for slaughter.

1. Colby Branch Station.
2. Garden City Branch Station.
3. Mound Valley Branch Station.

(45)

Table 35
Results of the wintering phase, November 8, 1963, to February 28, 1964—112 days.

Location	Colby		Garden City		Manhattan		Mound Valley	
Lot no.	1	2	1	2	1	2	1	2
No. steers per lot	6	6	6	6	6	6	6	6
Av. initial wt., lbs.	454.2	454.2	453.3	454.2	453.3	454.2	454.2	453.3
Av. final wt., lbs.	572.1	590.1	649.0	616.8	619.2	607.5	608.5	575.7
Av. daily gain, lbs.	1.05	1.21	1.75	1.45	1.48	1.37	1.33	1.09
Av. daily ration, lbs.:								
Sorghum silage	25.2	27.1	23.8	22.3	24.5	24.1	22.8	20.3
Alfalfa hay	4.3	5.0	4.9	4.9	5.0	5.0	5.0	5.0
Feed per cwt. gain, lbs.:								
Sorghum silage	23.89	22.33	13.60	15.34	16.66	17.60	16.58	18.58
Alfalfa hay	4.05	4.08	2.78	3.34	3.38	3.65	3.32	4.54
Total dry matter cwt. gain, lbs.	954	921	680	786	886	947	897	949
Feed cost cwt. gain*	\$14.52	\$14.03	\$8.92	\$10.31	\$11.05	\$11.60	\$11.16	\$13.11

* Silage, \$8 per ton; alfalfa hay, \$25 per ton.

Table 36
Feedstuff analyses.

	Moisture, %	Dry matter, %	Protein, %	Ash, %	Ether extract, %	Crude fiber, %	N.P.F., %	Quercetin, mg./lb.
Colby:								
Sorghum silage	72.14	27.86	1.71	2.42	0.59	6.60	16.54	1.0
Alfalfa hay	5.2	94.8	13.69	7.65	1.68	26.78	45.00	29.2
Sorghum grain								
Dryland	8.5	91.5	9.81	0.91	0.99	0.92	78.87	
Irrigated	8.5	91.5	10.84	0.93	1.91	1.91	75.91	
Garden City:								
Sorghum silage	69.0	31.0	1.76	2.42	0.55	7.45	18.72	2.0
Alfalfa hay	6.9	93.1	19.18	9.14	1.55	24.90	19.18	24.9
Sorghum grain	10.7	89.3	8.52	0.77	3.93	1.93	74.15	
Manhattan:								
Sorghum silage	65.69	34.4	3.15	2.98	1.01	8.52	18.74	2.0
Alfalfa hay	6.50	93.5	16.71	7.32	2.41	24.74	42.32	17.6
Sorghum grain	12.10	87.9	9.97	0.95	2.76	1.47	72.75	
Mound Valley:								
Sorghum grain	71.70	28.3	1.88	1.91	0.53	6.44	17.42	1.0
Alfalfa hay	6.70	93.3	18.58	9.63	1.82	22.70	40.57	8.8
Sorghum grain	11.30	88.7	9.46	1.02	1.53	2.34	74.35	