

## Spring Grazing Trial

The pasture in the spring grazing trial were grazed for the first time this season. The purpose of this trial is to compare the value of straight crested wheat grass pastures and crested wheat grass-alfalfa pastures for spring grazing. The pastures were seeded to crested wheat grass in the late fall of 1953. The alfalfa in the crested wheat grass-alfalfa pastures was seeded over the crested wheat grass in the spring of 1954. Excellent stands of both grass and alfalfa were obtained in the pastures. The pastures were fenced in the fall of 1954 and water brought to all pastures in the early spring of this year. There are two crested wheat grass pastures, each of eight acres, and two crested wheat grass-alfalfa pastures each of eight acres. Thus there are two replications in the trial.

Each eight - acre pasture was stocked with seven yearling Hereford steers on May 4, and the pastures were grazed for a 51-day grazing period from May 4 to June 23. The steers were weighed just before they were put on the pasture, again on May 31, and finally on June 23 when the grazing period was officially terminated.

[Table 11](#) summarizes the pasture yield and utilization data obtained by means of movable steel cages, each 4' x 4' in size. Ten of these cages are located in each pasture. During the period of the trial the two crested wheat grass pastures produced an average of 962 lbs. per acre (oven-dry weight) of forage. Of this production, the grazing animals consumed 817 lbs. per acre, leaving on the ground at the end of the grazing period 144 lbs. per acre of plant material.

Pasture No.	Pasture Type	Forage Produced lbs./acre	Forage Utilized lbs./acre	Forage left on ground lbs./acre
1	Crested Wheat grass	928	792	136

3	Crested Wheat grass	995	842	153
Average - Pastures 1 & 3		962	817	144
2	Crested Wheat grass and Alfalfa	1543	982	561
4	Crested Wheat grass and Alfalfa	1315	956	359
Average - Pastures 2 & 4		1429	969	460
<sup>1</sup> Oven - dry weights.				

Thus 85 percent of the forage produced during the period was utilized by the animals. Actually the crested wheat grass pastures were over utilized.

The two crested wheat grass-alfalfa pastures produced an average of 1429 lbs. per acre of forage, and the animals consumed 969 lbs. per acre of this production, leaving on the ground at the end of the trial 460 lbs. per acre of plant material. Utilization on the mixture pastures was thus 68 percent of the production during the grazing period. The animals on the crested-wheat grass pastures were short of forage for the last 15 days of the trial.

In the crested wheat grass-alfalfa pastures visual estimates indicated that the animals were getting a diet composed of about 50 percent crested wheat grass and 50 percent alfalfa. However, the data from the cage clippings showed that such was not case. Actually the percentage of alfalfa consumed was quite different in each of the crested-alfalfa pastures. In Pasture 2, during the period from May 4 to May 31, the animals had a diet composed of about 60 percent alfalfa and 40 percent grass. From June 1 to June 23 the forage consumed in this pasture averaged about 61 percent alfalfa. In Pasture 4 during the first period the diet was composed of about 30 percent alfalfa and 70 percent grass,. In this pasture during the last period the forage was 40 percent alfalfa and 60 percent grass.

[Table 12](#) summarizes the animal data from the spring grazing trial. During the period that the animals were on the pastures they all seemed to be in excellent health. No bloat was experienced on the grass-alfalfa pastures. The average initial weight of the steers placed on the crested wheat grass pastures was about 494.3 lbs. The average initial weight of the steers on the crested-alfalfa pastures was the same, 494.3 lbs.

The steers on the crested wheat grass pastures gained an average of 73.5 lbs. per head during the grazing period. The daily rate of gain was thus 1.44 lbs. per head. The total gain of all animals divided by the number of acres in the pasture showed that the gain per acre on straight crested wheat grass was 64.3 lbs. The performance of the steers on the crested-alfalfa pastures was substantially better. The average gain per head was 105.3 lbs. The daily gain per head was 2.06 lbs., and the gain per acre 92.2 lbs.

The season the crested-alfalfa pastures gave substantially better production of both forage and beef than did the straight crested wheat grass pastures. The crested-alfalfa pastures produced 48.5 percent more forage than the crested wheat grass pastures and 43.4 percent more beef per acre. On the basis of the results thus far it seems that there is a substantial advantage in having alfalfa with crested wheat grass for spring grazing rather than using straight crested wheat grass pastures.

Table 12. Spring Grazing Trial: Performance of Yearling Steers on Crested Wheat grass and Crested Wheat grass-Alfalfa pastures during Spring Grazing Period from May 4 to June 23, 1955.									
Pasture No.	Composition of Pasture Vegetation	No. of Steers	No. Acres per Pasture	Days on Pasture	Average Initial Weight per Steer	Average Final Weight per Steer	Average Seasonal Gain per Head	Average Daily Gain per Head	Gain Per Acre
					lbs.	lbs.	lbs	lbs.	lbs.
1	Crested wheat grass	7	8	51	493.6	568.6	75.0	1.47	65.6
3	Crested wheat grass	7	8	51	495.0	567.1	72.1	1.41	63.1
Average - Pastures 1 & 3		7	8	51	494.3	567.8	73.5	1.44	64.3
2	Crested wheat grass and Alfalfa	7	8	51	494.3	591.4	97.1	1.90	85.0

4	Crested wheat grass and Alfalfa	7	8	51	494.3	607.9	113.6	2.23	99.4
Average - Pastures 2 & 4		7	8	51	494.3	599.6	105.3	2.06	92.2

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