

## Plots Fertilized Every Other Year

The hay yields from the plots fertilized every other year with ammonium nitrate are given in Table 12. These plots are fertilized in the spring, and the rates of application are the same as for the plots fertilized annually. Fertilizer applications were made in the spring of 1957 and 1959. The data obtained thus far in this study indicate that there is some carry-over from all rates of fertilization. The effect was particularly pronounced in the 1960 season when yields on the plots fertilized in 1959 showed 1306 pounds per acre for the check, 1813 pounds per acre for 25 pounds of N., 1801 pounds for 50 pounds of N., and 2187 pounds of hay on the plots receiving 100 pounds of N.

On the basis of the use of equal amounts of nitrogen over a 2-year period, the increases in yield obtained from fertilizing every other year with 50 pounds of nitrogen per acre have not been quite as good as the increases obtained from fertilizing every year with 25 pounds of nitrogen per acre. On the other hand, the use of 100 pounds of nitrogen every other year has produced slightly better results than the use of 50 pounds of nitrogen every year. The increased yields from 50 pounds nitrogen every year or 100 pounds every other year are just barely profitable and the use of these heavier rates does not appear justified, when such a distinct advantage exists for the 25-pound rate.

Table 12. Forage production from Old Crested Wheatgrass plots fertilized every other year* with ammonium nitrate (33-0-0).							
Year	Dry weight-lbs./acre				Percentage increase over check		
	Check	25# N	50# N	100# N	25# N	50# N	100# N
1957	1239	1714	2013	2001	38.3	62.5	61.5
1958	1003	1016	1114	1250	1.3	11.1	24.6
1959	1094	1230	1266	1659	12.4	15.7	51.6

1960	1306	1813	1801	2187	38.8	37.9	67.5
4-year Average	1161	1443	1549	1774	24.3	33.4	52.8
*Fertilizer applied in spring 1957 and 1959.							

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