

CRESTED WHEATGRASS RENOVATION TRIAL

[Table 4](#) gives the yields of crested wheatgrass hay from a renovation trial begun on an old stand of crested wheatgrass in the spring of 1952. The renovation treatments included, disking to thin the cover, disking plus 100 lbs. of N. per acre, disking followed by seeding to sweetclover, disking followed by seeding to alfalfa, and the application of 100 lbs. of N. to the undisked stand.

The disking thinned the cover by about 30 per cent, but depressed the yield the first year. By the end of the second season, 1953, most of the depressing effects of the disking had disappeared, but there seemed to be little or no stimulatory effect.

The 1952 season was very dry and only a few of the sweetclover and alfalfa plants became established. However, in 1953, numerous seedlings of sweetclover and some alfalfa seedlings became established. So far the effects of the legumes introduced into the cover have been negligible. It does appear, however, that in future years the legumes may have a substantial influence in increasing the yield from these plots.

The nitrogen applications had no appreciable effect the first season, but with favorable moisture conditions in 1953 the plots treated with nitrogen made an excellent yield, producing about 74 per cent more hay than the check plots in the case of the disked plus N treatment, and about 65 per cent more in the case of the undisked plots.

Since the cost of the nitrogen applications is relatively high, the best possibility of increasing yields of these old crested wheatgrass stands economically appears to be in introducing legumes into the stand. In this particular trial, the dry season on 1952 interfered with successful establishment of the legumes, but the favorable moisture conditions of 1953 allowed the germination and establishment of additional seedlings, so that a fair proportion of these plants may yet become established in the stands.

Table 4 - Influence of Renovation Treatments on the Production of Hay from Old Crested Wheatgrass Plots.¹

Treatment	1952		1953	
	Yield - Lbs./Ac.	Percentage Difference From Check	Yield - Lbs./Ac.	Percentage Difference From Check
Check	728	---	2448	---
Disked	454	-37.6	2426	-0.9
Disked + 100Lbs. Nitrogen	732	+0.5	4269	+74.4
Disked + sweetclover	556	-23.6	2311	-5.6
Disked + alfalfa	595	-18.3	2836	+15.8
100 lbs. Nitrogen	763	+4.8	4035	+64.8

¹Treatments applied in the spring of 1952.

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