

Experimental Farms.

EXPERIMENTS WITH CLOVER.

In the annual report for 1895 the results were given of some experiments carried on that year in the sowing of clover with grain, to gain information on this very important question, can clover be grown to advantage with grain from year to year without materially lessening the crop? If this can be done, the clover will serve as an excellent catch crop, absorbing and appropriating the nitrogenous fertilizers brought down by the rain during the late summer and autumn months as well as absorbing nitrogen from the air and may be subsequently ploughed under with great advantage to the land. Further points on which information was sought were, what kinds of clover are best for this purpose, and what quantity of seed should be sown per acre.

These experiments, somewhat modified, have been continued. Last year there were eleven plots devoted to different quantities of Mammoth Red clover seed per acre from 2 lbs. to 16 lbs., including three check plots. This year seven plots were set aside for this purpose, using from $\frac{1}{2}$ lbs. to 14 lbs. per acre, with one check plot. In 1895 these plots were all sown with a variety of two-rowed barley, Canadian Thorpe. This year they were sown with a six-rowed sort, Odessa.

The soil chosen for these tests was a sandy loam of fair quality, which received a light dressing of barn-yard manure about 10 tons per acre in the spring of 1896. The previous crop was Indian corn. The manure was ploughed under about 6 inches deep immediately after spreading, and the land was then harrowed twice with the smoothing harrow before sowing. The size of the plots was $\frac{1}{10}$ acre each. They were all sown with the barley 5th May $1\frac{3}{4}$ bushels per acre; came up 11th May and were ripe 27th July. The time to mature was 83 days. The crops were as follows:

Variety of Barley sown—Odessa.	Weight of straw per acre.	Yield of Barley per acre.	
	Lbs.	Bush.	Lbs.
No. 1—4 lbs. Mamm. Red Clover per acre.....	3,245	56	27
2—Was a check plot, had no clover.....	3,205	50	5
3— 6 lbs. Mamm. Red Clover per acre.....	2,995	56	12
4 — 8 lbs. “ “.....	2,730	55	10
5—10 lbs. “ “.....	2,690	52	4
6—12 lbs. “ “.....	2,665	48	11
7—14 lbs. “ “.....	2,535	47	14

From the slight variations in these crops above and below that given by the check plot it does not appear that the yield of barley was materially influenced by the sowing of clover with it; thus confirming the experience of last season. In 1895 all the plots were ploughed on the 4th of October, and a square block of about 6 x 6 inches of the turned furrow was taken from each plot washed clean of earth, and notes taken on the roots. This year the clover has been left to winter over. The following notes on the growth of the clover were taken at two different periods, on the 23rd of July and 14th October.

No. 1. 4 lbs. Mammoth Red Clover per acre. 23rd July, growth weak and thin but fairly even. 14th October, height 8 to 10 inches, growth uneven and patchy, not thick enough to make good meadow or for ploughing under with advantage—a few plants in bloom.

No. 3. 6 lbs. Mammoth Red Clover per acre. 23rd July, growth weak and thin, but fairly even. 14th October, height 8 to 10 inches, growth medium to strong, would be fairly good for meadow but not thick enough for ploughing under—a few plants in bloom.

No. 4. 8 lbs. Mammoth Red Clover per acre. 23rd July, growth medium and fairly even. 14th October, height 10 to 12 inches, growth strong and even, in good condition to leave for meadow and fairly good for ploughing under, a very few plants in bloom.