

FOURTH SOWING.

Plot 7.—Forty lbs. of seed per acre. Sown 29th May, came up 4th June. Pulled one-half of plot for straw, 17th August, when the seed was about one-third ripe. Height 31 to 37 inches. The other half of this plot was harvested for seed, 19th August.

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| Weight of straw per acre | 5,570 lbs. |
| Yield of seed per acre | 11 bushels 24 lbs. |

Plot 8.—Eighty lbs. of seed per acre. Seed sown, flax pulled and seed harvested same dates as plot 7. Height of flax when pulled, 31 to 37 inches.

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| Weight of straw per acre | 5,560 lbs. |
| Yield of seed per acre | 10 bushels 20 lbs. |

In each of these sowings, except the fourth, the plots which received the 80 lbs. of seed per acre gave the largest quantity of straw, while those which received the 40 lbs. gave the largest crop of seed. The plots first sown have given the heaviest weight of straw, and those sown second in the series the largest yield of seed. The particulars as to the quantity and quality of fibre from the straw on each plot will be given later.

EXPERIMENTS WITH HORSE BEANS.

Two field plots were sown with horse beans grown for ensilage including three acres in all. The land was part sandy loam and part peaty. The previous crop was barley. It was ploughed shallow after the barley was harvested and harrowed with the smoothing harrow to start weed seeds and shed grain, and later in the autumn it was ploughed about 8 inches deep. The land was manured in the spring of 1896 with about 12 tons of barn-yard manure per acre, ploughed under about 6 inches deep and harrowed with the smoothing harrow twice. The beans were then sown with the seed drill in rows 3 feet apart, using about 50 lbs. of seed per acre.

Plot 1.—Two acres sown with "tick" beans imported seed. Sown 9th May, came up 19th May and was cut for ensilage 22nd September when the plants were still green. The growth ranged from weak to medium, the vines were well podded and a few of the pods ripe. Height from 45 to 50 inches, most of the plants had their foliage partly blighted. Yield per acre 2 tons 437 lbs.

Plot 2.—One acre sown with "tick" beans ripened last year on the Central farm. Sown 9th May, came up 18th May and was cut 21st September. The growth was weak to medium, height 45 to 50 inches with much of the foliage blighted. Yield per acre 3 tons 1,400 lbs.

These small crops were no doubt mainly due to the prevalence of blight and the unsuitable character of the soil.

EXPERIMENTS WITH SUNFLOWERS.

Two field plots covering $1\frac{1}{2}$ acres in all were sown with this crop, with the object of securing a large number of seed heads to put into the silo with corn ensilage to add fatty matter to this food. The soil was a sandy loam and the previous crop was barley. The land was ploughed very shallow soon after harvest to cover and start weed seeds and shed grain and again ploughed late in the autumn about 8 inches deep. In the spring of 1896 it received a dressing of barn-yard manure about 12 tons per acre which was ploughed under about 6 inches deep, it was then harrowed with the smoothing harrow and rolled with a land roller before sowing. The seed was sown with a Planet Junior hand seed drill in rows three feet apart, and thinned out when the plants were about 3 inches high to from 16 to 18 inches apart in the rows. In growing this crop from Russian seed in former years part of the heads have given black seed and a part light coloured seeds, these were selected and sown separately during the past season.