

## Experimental Farms.

The following varieties were sown with seed both treated and untreated, and the heads growing on 33 square feet were counted with the following results :—

Name of variety.	Treated.		Untreated.	
	No. of good heads.	No. of heads smutted.	No. of good heads.	No. of heads smutted.
Flying Scotchman.....	1,407	None.	1,424	167
Doncaster Prize.....	1,479	4	1,067	352
Rennie's Prize.....	1,516	4	1,656	138

### FIELD CROPS OF OATS.

*Abundance.*— $4\frac{3}{4}$  acres. Sown on light sandy loam. The land was manured in the spring of 1893 with 18 to 20 tons of barn-yard manure per acre, and cropped in 1895, 3 acres with pease and  $1\frac{3}{4}$  acres with potatoes. That part on which the pease were sown was ploughed in the autumn about 8 inches deep and disc-harrowed twice in the spring and harrowed with the smoothing harrow twice before sowing. That part on which the potatoes were grown in 1895 was manured in the spring of 1893 with 18 to 20 tons of barn-yard manure per acre. It was ploughed in the spring of 1896, about 6 inches deep and harrowed with the smoothing harrow twice before sowing. Sown 24th April: two bushels per acre; came up 4th May, and was ripe 31st July. The time to mature was 98 days. The yield per acre was 57 bushels 24 lbs.; weight per bushel, 35 lbs. Length of head, 8 to 11 inches, branching; length of straw, 40 to 55 inches. Made a fairly strong growth; all standing well; no smut; leaves and stems slightly rusted.

*Wallis.*—9 acres. Sown on light sandy loam which was manured in the spring of 1895, with 12 tons of barnyard manure per acre. The previous crop was corn. The land was ploughed in the autumn of 1895, about 8 inches deep and disc-harrowed twice and twice harrowed with the smoothing harrow before sowing. Sown 6th May; two bushels per acre; came up 11th May, and was ripe 8th August. The time to mature was 94 days. The yield per acre was 37 bushels 13 lbs.; weight per bushel  $35\frac{3}{4}$  lbs. Length of head, 7 to 9 inches, branching; length of straw, 40 to 52 inches; all standing well; growth medium; rather uneven; no smut; leaves and stems slightly rusted. The crop was light owing to the poor quality of the soil.

*Golden Beauty.*—1 acre. Sown on heavy sandy loam. The land was manured in the spring of 1895 with about 10 tons of barn-yard manure per acre. The previous crop was corn and beans. It was ploughed late in the autumn of 1895 about 8 inches deep and disc-harrowed twice in the spring of 1896 and harrowed with the smoothing harrow twice before sowing. Sown 6th May; two bushels per acre; came up 13th May, and was ripe 6th August. The time to mature was 92 days. The yield per acre was 56 bushels 6 lbs.; weight per bushel  $39\frac{3}{4}$  lbs. Length of head, 7 to 9 inches, branching; length of straw, 46 to 50 inches; all standing well; made a strong, even growth. There was some smut and the leaves and stems were slightly rusted.

The four following plots were sown adjoining Golden Beauty, on similar land, which had the same manuring and treatment :—

*Columbus.*— $\frac{3}{4}$  acre. Sown 6th May; two bushels per acre; came up 12th May, and was ripe 5th August. The time to mature was 91 days. Yield per acre, 67 bushels 30 lbs.; weight per bushel  $35\frac{1}{4}$  lbs. Length of head, 7 to 9 inches, branching; length of straw 46 to 48 inches; all standing well; growth strong and even; no smut; leaves and stems slightly rusted.

*American Beauty.*— $\frac{3}{4}$  acre. Sown 6th May; two bushels per acre; came up 12th May, and was ripe 6th August. The time to mature was 92 days. Yield per acre, 74 bushels 11 lbs.; weight per bushel  $38\frac{1}{2}$  lbs. Length of head, 7 to 9 inches, branch-