

Experimental Farms.

Golden Giant Side.—5 acres. This plot was adjoining the Bavarian, and the soil, which was all light sandy loam, received the same manuring and treatment. Sown 12th May; 2 bushels per acre; came up 17th May, and was ripe 15th August. The time to mature was 95 days. Yield per acre, 48 bushels 2 lbs.; weight per bushel 36 lbs. Length of head, 7 to 9 inches; sided; length of straw, 43 to 51 inches; all standing well; growth strong and even; no smut; leaves and stems slightly rusted.

Winter Grey.—3½ acres.—This plot also adjoined the Bavarian oats, and received the same manuring and treatment, but the soil was all peaty. Sown 13th May; 1½ bushels per acre; came up 18th May, and was ripe 11th August. The time to mature was 90 days. Yield per acre, 29 bushels 25 lbs.; weight per bushel, 41 lbs.; length of head, 7 to 9 inches, branching; length of straw, 38 to 44 inches; standing fairly well; growth medium and even; no smut; leaves and stems slightly rusted. This soil being unsuitable for the crop, the yield was comparatively small.

The six varieties following were all sown on one-acre plots side by side. The land was all similar in quality, and the manuring and treatment was the same.

Oderbruch.—1 acre.—Sown on heavy sandy loam. The land was manured in the spring of 1895 with about eight tons of barn-yard manure per acre; previous crop was mixed grain. It was ploughed in the spring of 1896 about 6 inches deep and harrowed with the smoothing harrow before sowing. Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 15th August. The time to mature was 93 days. Yield per acre, 33 bushels 20 lbs.; weight per bushel, 31 lbs.; length of head, 7 to 9 inches, sided; length of straw, 41 to 49 inches; all standing well; growth strong and even; no smut; leaves and stems slightly rusted.

Siberian.—1 acre.—Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 15th August. The time to mature was 93 days. Yield per acre, 37 bushels 13 lbs.; weight per bushel, 35 lbs. Length of head, 8 to 10 inches, sided; length of straw, 44 to 51 inches; all standing well; growth strong and even; no smut; leaves and stems slightly rusted.

Victoria Prize.—1 acre. Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 8th August. The time to mature was 86 days. Yield per acre, 33 bushels 5 lbs.; weight per bushel, 33 lbs. Length of head, 8 to 10 inches, branching; length of straw, 45 to 49 inches; was somewhat broken just before harvesting; growth strong and even; a little smut; leaves and stems slightly rusted.

Flying Scotchman.—1 acre. Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 7th August. The time to mature was 85 days. Yield per acre, 34 bushels 3 lbs.; weight per bushel, 37½ lbs. Length of head, 7 to 9 inches, branching; length of straw, 41 to 47 inches; considerably lodged; growth strong and even; a little smut; leaves and stems slightly rusted.

Early Golden Prolific.—1 acre. Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 10th August. The time to mature was 90 days. Yield per acre, 44 bushels 3 lbs.; weight per bushel, 35½ lbs. Length of head, 7 to 9 inches, branching; length of straw, 41 to 47 inches; all standing well; growth strong and even; a little smut; leaves and stems slightly rusted.

Prize Cluster.—1 acre. Sown 14th May; 1½ bushels per acre; came up 21st May, and was ripe 10th August. The time to mature was 90 days. Yield per acre, 32 bushels 4 lbs.; weight per bushel, 38½ lbs; length of head, 8 to 10 inches branching; length of straw, 44 to 49 inches; all standing well; growth strong and even; some smut; leaves and stems slightly rusted.

EXPERIMENTS WITH BARLEY.

Comparative tests have been made during 1896 with fifty-seven varieties of barley, twenty-eight of which were two-rowed sorts and twenty-nine were six-rowed. These were all sown in plots of $\frac{1}{20}$ acre each. The two-rowed varieties were all sown on the 5th of May, and the six-rowed on the 4th and 5th of May. The soil was a heavy sandy loam which was manured in the spring of 1896 with about twelve tons of barn-yard