

BULLETIN 100.

EXPERIMENTS WITH WINTER WHEAT.

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One hundred and ninety-seven plots were used for winter wheat experiments at the Ontario Agricultural College during the past season. About one-half of this number was used for testing varieties, and the remainder for testing different dates of seeding, methods of seeding, selections of grain for seed, quantities of seed per acre, the yield and quality of wheat cut at different stages of ripeness, and the value of seed from wheat cut at different stages of maturity. This bulletin gives a concise report of the principal results of these tests, and it also gives the average results of some of the experiments which have been conducted for a number of years past.

FIELD CONDITIONS.

The plots used in 1895 for the winter wheat experiments were situated in the northern portion of the large experimental field which lies to the rear of the main College building. The land has a gentle slope to the south-west and its position is somewhat elevated. Hence it was considerably exposed to the cold winter winds, which were so prevalent last season. The soil, which is an average clay loam, was prepared on the bare fallow system, and received a coating of fifteen tons of farmyard manure per acre in 1894. The plots were all the same size, each containing exactly $\frac{1}{16}$ of an acre. The yields per acre have been determined by the actual yields of the plots.

CONDITIONS OF SEASON AND GROWTH.

The grain for the various winter wheat experiments was sown early in September. The germination of the seed was good, and the growth upon the different plots during autumn was quite satisfactory. There were very frequent strong, cold winds during the winter, and the snow was so often blown from the plots that they were only very thinly covered during the greater part of the cold weather. As the slope in the land extends throughout the whole length of the plots, there was no chance for water to lie upon any part of them, but a considerable amount of sleet which came in the early spring, along with the influence of the cold weather, seriously injured many of the