

For wheat growers to determine the proper quantity of winter wheat to sow per acre in order to get the best results upon their respective farms, it will be advisable for them to observe and experiment for themselves, as so much depends upon the fertility of the soil and other conditions.

The Yield and Quantity of Winter Wheat as Affected by Cutting at Different Stages of Maturity. Five plots each, of the Dawson's Golden Chaff and the Early Genesee Giant winter wheats were sown on the same date in 1893, 1894, and again in 1895. These two varieties reached the stage of maturity at which winter wheat is usually cut in Ontario, on the 19th of July, 1894, the 18th of July, 1895, and the 11th of July, 1896. The two wheats were cut at five different periods during the three years, commencing on July 4th in 1894 and in 1895, and on June 30th in 1896. The periods between the cuttings were one week in length. In each of the three years the greatest yield of straw was obtained from the first cutting, and the heaviest weight of grain per measured bushel from the second and third cuttings. The yield of grain per acre was best from the last cutting in 1894 and in 1896, and from the second last cutting in 1895. The lowest results in yield of grain per acre and in weight of grain per measured bushel were obtained from the first cutting of each variety in each year. The quality of the straw in 1896 was decidedly the best from the first two cuttings, and was decidedly the poorest from the last two cuttings.

Value of Grain for Seed as affected by cutting at different stages of maturity. Dawson's Golden Chaff and the Early Genesee Giant varieties of winter wheat, were both sown on the same date in 1893 and again in 1894; and the plots were cut on July 4th, 11th, 18th, 19th and 25th, and August 2nd in 1894 and in 1895. The first cutting took place about two weeks before and the last cutting about two weeks after that stage of ripeness at which winter wheat is usually cut. A quantity of seed of each variety was taken both years from each of the five different cuttings, and these equal amounts of grain were sown upon a smaller number of uniform plots in the autumn of 1894 and 1895. The plots of the one year were all harvested at one time in July, 1895, and of the other year in July, 1896. It was found in the results of each year that the largest yield of grain per acre was produced by the seed of the last cutting of the previous year.

CO-OPERATIVE EXPERIMENTS WITH WINTER WHEAT.

Seventeen varieties of winter wheat which have been the most successful among all the varieties tested in the Experimental Department of the College, have been distributed over Ontario within the past four years. These have been sent out in sets of five varieties each. Eight thousand one hundred and fifty-five packets of winter wheat have been distributed during the past four years, and comparative tests have been made upon seventeen hundred Ontario farms. This system of co-operative experimental work was established by the ex-students of the Agricultural College; but, through repeated requests from other farmers, an invitation is extended to all interested persons to join in the work. The results have, on the whole, been very gratifying; and the numerous experimenters have become much interested in the different experiments undertaken. For detailed reports of these co-operative experiments, the reader is referred to the

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