tive strength of straw, as many of the varieties were badly lodged, while others, growing beside them, stood upright until ripe. In 1890, 1892 and 1893, there was a considerable amount of rust on our winter wheat; but, as many of the varieties were much more affected than others, we were enabled to make some valuable comparisons. Almost all the varieties came well through the winters from 1890 to 1894, but in 1895 many of them were very much winter-killed, while others, growing beside and between the injured ones, sustained little or no injury.

The varieties of winter wheat which are most desirable for cultivation in Ontario, are those which possess the greatest number of good and the least number of bad qualities. To compare the different varieties in this respect is the object of the present bulletin. From what is said in the preceding paragraph, the reader will readily understand that it is of great importance to have these experiments extend over a period of *several* years, in order to have the varieties subjected to various climatic conditions.

Characteristics and Yields of Varieties.

The following table contains the characteristics and the yields of one hundred and two varieties tested during the past season. The horizontal rows give information regarding the different varieties, and the perpendicular columns furnish a means of comparing the characteristics and yields of the varieties with one another. Starting at the left hand side of the table, columns 1 and 2 give the numbers and names of the varieties; 3 and 4 refer to their characteristics; 5, 6, 7 and 8 give results for 1895; and 9, 10, 11 and 12 give average results for four, three or two years, or for one year, as indicated in column No. 2. Of the first fifty-three varieties mentioned in the table, we have grown some for six years, others for five years, and the remainder for four years; but, to allow a better comparison of the varieties, the average results of only the last four years are here presented.

The reader's attention is especially directed to the last column on the right hand side of the table, as this gives the average yield of grain per acre of each variety for the number of years reported upon, and the varieties are arranged in the table according to these average yields, starting with the highest and finishing with the lowest.

There is, perhaps, not a winter wheat grower in Ontario but is quite familiar with some of the varieties herein reported upon, as many of the old varieties have been tested along with the newer kinds. The following table furnishes an excellent opportunity for each farmer to compare the respective merits of the varieties which he has not grown, with those of the varieties with which he is familiar.