Varieties Tested.

Eighty-one varieties of winter wheat have been under test this season. The plots were situated side by side, the soil being quite uniform throughout. They were separated from each other by paths three feet wide. All the plots were sown by hand, at the rate of two bushels per acre, on September 4th, with the exception of eight varieties, which were sown on small sized plots, about ten days later, and which are not included in the tabulated results. The varieties ripened between the 10th and the 18th of July, which was about six days earlier than in 1895. The trouble from smut this season was very slight. The yields per acre have been calculated from the actual yields of the plots.

The following table gives the number of varieties tested and reported on within the past seven years, and also the average yields for each of these years:

Year.	Number of varieties grown each year.	Average weight of grain per measured bushel.	Average yield of—	
			Straw per acre.	Grain per acre.
		lbs.	tons.	bus.
1890	15	60.0	2.4	30.9
1891	23	63.3	2.0	52.9
1892	44	60.5	3.2	42.6
1893	52	58.4	2.1	29.9
1894	80	60.8	4.0	46.7
1895	102	60.4	1.2	26.1
1896	81	60.3	2.6	42.1

From this table it will be observed that the eighty-one varieties tested in 1896, gave an average of 2.6 tons of straw, and 42.1 bushels of grain per acre, and an average weight of grain per measured bushel of 60.3 pounds. The yield of grain, therefore, is about four and a half bushels per acre more than the average yield of the past seven years. The average weight per measured bushel, however, is one-fifth of a pound less than the average of these years. The largest yield of grain per acre was obtained in 1891, and the smallest in 1895. It will be observed that there is a great difference in the quality of grain produced in the several years. The average weight per measured bushel in 1891 was 63.3 pounds, and in 1893 58.4 pounds. For some of the reasons of these variations, reference can be made to the six bulletins on winter wheat, previously issued. From a careful study of the above table and the previous winter wheat bulletins, 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. We wish to emphasize the fact that the average results of three, four or five years' experimental work should be of much greater value than the results obtained from experiments of only one year.