COOPERATIVE ROD-ROW WHEAT TRIALS IN NORTH DAKOTA FOR 1928

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In this paper a brief report is presented of results from cooperative rod-row wheat trials conducted in North Dakota in 1928, following a report\(^3\) for similar experiments in 1927. A consideration of rust injury is also included.

Ten varieties of wheat were grown in rod rows which were quadruplicated and unguarded in all cases but two, where they were grown triplicated in guarded rows. In these two cases, additional varieties were added to the experiment. Forty-five lots of wheat were sent out and threshing data were secured on 28 lots, 7 more than in 1927. In the 1928 series of experiments, the work was undertaken at 21 localities by farmers, at 19 localities by Smith-Hughes instructors, and at 5 localities by men in state institutions.\(^4\)

Data were presented in the 1927 report tending to show that this method of rod-row work gave reasonably reliable results. It is possible at this time to furnish additional evidence upon this matter. The kinds of wheat selected for the work of 1928 were fewer in number with the result that a greater number of localities had the same quotas of wheat. By reason of this, it was possible to determine in a more satisfactory manner the correlation existing between yields of any two localities. As local conditions would enter in to affect the yields of any locality, only a reasonable amount of correlation could be expected. In a series of inter-locality correlations of this nature, two regions might enter into the comparison not equally adapted to the same varieties of wheat. Correlation between these two localities would thereby become reduced.

One set of coefficients was secured in eastern North Dakota between the seven localities of Mooreton, Edgeley, LaMoure, Cleveland, Carrington, Valley City, and Arthur. The coefficients are shown in Table 1.

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\(^{2}\)Plant Breeder.


\(^{4}\)The limits of this article preclude a detailed list of those participating and individual acknowledgment of work. A detailed list can be supplied upon request. The cordial assistance rendered by the cooperators is hereby gratefully acknowledged.