THE USE OF CHECKS AND REPEATED PLANTINGS IN VARIETAL TESTS.¹

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Although methods of testing varieties of farm crops have undergone critical analysis in recent years and some efforts have been made towards the adoption of a uniform system, we still find a great diversity of practice. Certain agronomists, thoroughly imbued with the magnitude of seasonal variations, dispense with field controls and devote their attention to climatic factors, omitting from their summaries the results of abnormal years, while others endeavor to control the inequalities of the soil by means of frequent checks and repeated plantings, but practically disregard seasonal influences. Obviously neither of these methods is ideal. The failure to take the irregularities of both the season and the soil into consideration extends the experiment over a long period of years. A ten-year period, which is often advocated, has a number of disadvantages. It makes the farmers wait too long for results and offers to individuals and companies no encouragement for the production of new varieties because so much time is required to test their merits and it is uncertain whether another equal period would give similar results. An approximately perfect method covering both seasonal and field control should give greater efficiency and a shorter test than is ordinarily afforded by current methods.

From a study of the controls used in sugar-beet breeding exper-

¹ Received for publication January 13, 1916.
² The writer wishes to acknowledge his indebtedness to Dr. H. L. Reitz for many helpful suggestions.