SYNTHETIC PRODUCTION OF HIGH-PROTEIN CORN IN RELATION TO BREEDING:

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INTRODUCTION.

A standard plan of procedure has been developed for the small grain breeder by the application of Mendel’s principles and thru studies in field plot technic. Minor variations in methods used by different investigators occur, but fundamental principles are well known.

With corn improvement there is no such uniformity of technic. Some breeders favor the use of the corn score card as a means of isolating higher yielding varieties (12). A much larger number believe the score card is of no value in isolating higher yielding varieties (18, 23, 29). It is recognized that the corn shows promote an interest in crop production (13). However, this does not seem a good reason for teaching the corn grower that ear-type selection may be expected to increase yield. Many breeders believe that the ear-to-row test is very valuable and some workers believe it is the only method of isolating a higher yielding variety (20). Others doubt the value of ear-to-row breeding for farmers. They also question the value of its continued use by the investigator (18, 21, 23). Field experiments have not always been carefully planned. For example, some workers have made comparisons of varieties and strains by

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2 Reference is to "Literature cited," p. 317.