METHODS OF DETASSELING AND YIELD OF HYBRID SEED CORN

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FROM observation, methods of detasseling vary from the seed grower who goes over his crossing plot many times removing only the most advanced tassels each trip, to the producer who waits as long as is safe before beginning detasseling and then attempts to detassel as many plants as possible the first time over the field. The removal of tassels that have not entirely emerged from the leaf sheath is practically impossible without removing at the same time one or two of the upper leaves. Hybrid seed corn producers have asked whether the removal of leaves with the tassel had an effect on seed yields.

Dungan and Woodworth found that the removal of one, two, three, and four leaves with the tassel reduced the yield of grain 8.3, 15.3, 18.1, and 29.2%, respectively. They reviewed previous studies of the effect of detasseling on yield in corn.

The experiment reported here was started in 1940 to determine what effect the removal of different numbers of leaves had on seed yield and whether differences existed among female parents of different hybrids.

MATERIALS AND METHODS

In 1940, seed stocks of a number of new Minhybrid double crosses were released to Minnesota producers. Six of these double crosses had as a common male parent the single cross A7×A12. This fact enabled seed producers to produce seed of Minhybrids 700 and 701, maturity rating 88 to 92 days; Minhybrids 600 and 601, maturity rating 95 to 101 days; and Minhybrids 500 and 501, maturity rating 103 to 109 days, in one isolated plot. Since the female parents of these varieties varied considerably in maturity and plant habit, particularly width of leaf and type of tassel, this material seemed admirably suited for a study of the effect of leaf removal within and between varieties.

A well-isolated plot of ground that had been in pasture for a number of years was selected for the experiment. Three blocks of four rows each of each female