4. A tasselless phenotype in Maize.

A new maize phenotype has been observed for the past two years. During the summer of 1953 two plants were found which did not develop tassels. These were part of a group of crosses of exotic varieties with Argentine Waxy made by Dr. M. S. Zuber at the University of Missouri. The normal-appearing shoots of the two plants without tassels were pollinated with Argentine Waxy pollen, but only two seeds developed and these were from the same shoot. The plants from these two seeds, which were grown in the greenhouse, developed tassels but one was sterile. The fertile plant was selfed and the sterile plant was outcrossed to a single cross hybrid (940 x WF9). Dr. Zuber sent a few seeds from each plant for testing at the University of Nebraska during the summer of 1954. In the progeny of the selfed plant 6 plants developed out of 10 seeds planted, and these segregated 3 plants without tassels to 3 normal plants. The progeny of the outcrossed seed segregated 2 plants without tassels to 8 normal plants. The plants without tassels appeared normal in other respects, but the stalk ended in a whorl of leaves. Some of the normal plants had a high percentage of abnormal pollen. Seeds were obtained from both normal plants and plants without tassels and will be planted for further observations.

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