

The identification of the brachytic line as to whether it differs from  $br_1$  is underway. If it varies genetically in many respects from the known brachytic line which is located on chromosome 1, locus 92, then probably a permanent designation may be given.

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## 2. Cytoplasmic male sterile and pollen restorer Philippine inbreds.

The inbred lines involved in the production of white and yellow flint hybrids approved by the Philippine Seed Board for distribution and the source of cytoplasmic male sterility ( $F_{14}$ ) were planted in the 1957-58 dry-season breeding nursery located at the Central Experiment Station, College, Laguna. The male sterile line was planted in rows alternately with the fertile lines. All possible crosses were made. The selected ears from each cross, i.e., disease-free plants and ears with plump kernels, were planted ear-to-row in the 1958 wet-season nursery. The recurrent parental inbreds were also planted. The emerging tassels were carefully examined and classified as follows: completely sterile (all the plants in the row were devoid of shedding pollen), partially sterile (some of the plants in the row or portions of the tassel were shedding pollen) and completely fertile (all the plants in the row were profusely shedding pollen). Microscopic examinations of the anthers were done in the laboratory field to confirm the observation.

The result indicates that one inbred line was highly homozygous for the sterile factor. Three lines were completely, uniformly and abundantly shedding pollen. The result is of paramount significance because it may pave the way to the elimination of detasseling under the tropical growing conditions of the Philippines.

The completely sterile  $F_1$  plants were backcrossed to their respective recurrent parent while the completely fertile plants were selfed. The backcrosses and selfed ears are presently grown in the 1958-59 dry-season breeding nursery.

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