B. Preliminary studies have been made at Cornell involving comparisons of fertile and sterile plants of an inbred line (Oh 26), a single cross hybrid (Oh 26 x NY 16), and a hybrid double cross (Conn. 554), in which three Latin square designs were employed, respectively. Measurements of more than 500 plants per entry during several stages of development showed no significant difference in plant or ear height between comparable fertile and sterile plants. Likewise, cytoplasmic male sterile plants did not differ significantly from fertile plants in their yielding ability. In only one instance, that of a very preliminary determination of disease reaction to Ustilago Zea and Giberella zea was there any statistically significant difference between fertile and sterile plants, increased susceptibility being associated with the sterile condition.

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