

5. Corrections and up-dating of an earlier report.

The following corrections apply to an article in MNL 42, 1968, and refer specifically to Table 1 on page 123, the "All arms" interchange tester set.

1. A double \*\* should be added to T4-9 (4307) and removed from T5-8a.
2. T4-6 (Conn.) is a T2-3 interchange. The stock is now homozygous.
3. T2-7c, T5-10 (6760) are now homozygous.

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6. Pollen abortion and related mutants as possible schemes for producing "all male-sterile progeny."

The pollen abortion (pa) mutants might be used for this purpose. Thirty of them, characterized by sub-normal to very small pollen, have been reported in *Datura* by Blakeslee (1934) and Avery et al. (1959). They show normal female transmission but none through the pollen. One pa mutant with similar behavior in maize is located between P and br (Burnham, 1941). A plant heterozygous for such a mutant with a very closely linked ms gene on the normal chromosome would transmit only ms through the pollen. The cross on ms ms <sup>o</sup> would produce an all ms progeny.

Another possibility is an application of information published by McClintock (1944). She found that part of the deficiencies in the short arm of chromosome 9 had normal male and female transmission and also did not produce a new phenotype when homozygous. Certain normal alleles would be missing in both members of the pair. If the locus for a ms gene were one of them, the stock would breed true but when crossed on ms ms would produce all ms progeny (all hemizygous).

Such a stock might be produced by using irradiated pollen on ms plants, or on a non-lethal seedling character closely linked to ms. Various selection and test procedures could be used to establish and identify the diploid missing both alleles of ms, or the type with a usable pa mutant. (An idea developed from a proposal I made in our department in early February, 1971).

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