UNIVERSITY OF MISSOURI
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Columbia, Missouri

1. Two new B-type translocations.

A B-type translocation with breakpoint proximal to $\underline{d}_1$ on the short arm of chromosome 3 has been isolated. Cytological observations confirm the presence of the translocation, but further observations are required to determine the exact position. One known hyperploid ($3\ 3^B\ B^3\ B^3$) and three probable hyperploids gave the following progenies when crossed as males onto $\pm/\underline{d}_1$:

Male	Seedlings			Per cent hypoploids
	D	d	Total	
1060-3	85	16	101	31.7
1060-6	88	15	103	29.1
1060-23	81	14	95	29.5
1060-63	89	14	103	27.2

Because the female tester was heterozygous for $\underline{d}_1$, the frequency of hypoploids was obtained by doubling the frequency of dwarf plants.

The long arm of chromosome 5 appears to be involved in another B-type translocation. The translocation appears to be proximal to pr, but genetic and cytological confirmation is still required.

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2. Pollen selection experiments.

The pollination media reported last year (News Letter 40:108) permit tests of selection techniques parallel to the enrichment procedures that are used in microorganisms. An extensive series of trials was made this year; the most interesting of the results are presented below.

Selection for "resistance" to the media was tested on a pilot scale. Following self-pollination with a given medium, seed sets on controls (no previous selection) were compared with seed sets on plants derived from pollinations made with the medium in the previous generation. Out of 12 pairs of comparisons (differing in medium or dilution or exposure