

UNIVERSITY OF MINNESOTA
St. Paul, Minn.

1. Chromosome pairing studies.*

The following series of interchanges are being used in these studies: T1-5, T2-6, T4-6, and a few T1-6 and T5-9. Almost without exception homologous ends are closely associated at pachytene in all intercrossoes between stocks of interchanges that involve the same chromosomes. Intercrosses in all possible combinations between the members of each series have been made to test the applicability to corn of the intercross method as applied in barley (Kasha and Burnham, Canad. Jour. Genetics and Cytology 7(4):620-632).

John Stout
Joseph Neubauer
Ronald L. Phillips
Gary Stringam
C. R. Burnham

*supported by N.S.F.
Grant G B 1586.

2. Additional notes on the T2-6 interchanges.

T2-6 (027-4) has the break in 6 in the nucleolus organizer. In T2-6e the break in 6 is in the short arm between the centromere and the organizer. The break in 2 is also in the short arm.

Cultures of the interchange listed as T2-6 (014-11) show a chain of 6 chromosomes associated with the nucleolus. We have been unable to isolate a stock with an association of only 4 chromosomes.

Ronald L. Phillips
John T. Stout

3. Notes on the T1-5 interchanges.

In the following stocks, one chromosome is probably incorrect: 1-5 (8972), 1-5 (8347), 1-5 (018-5), 1-5 (024-5), 1-5 (4331), 1-5 (6178), and 1-5 (48-34-2). The breaks in chromosome 5 in 1-5a and 1-5 (6899), based on genetic data, are in the long arm rather than the short arm.

John Stout

4. Notes on a few of the 4-6 interchanges.

Based on cytological examination in homozygous lines, the following have the break in 6 in the short arm rather than