genotype and two Rg y si/Rg y Si genotypes clearly establish that y is between rg and si. Experiments with po and Pl are in progress to determine orientation.

Herbert H. Kramer

2. The location of y on chromosome 6.

Linkage tests of $y\text{-}su_2/Y\text{-}Su_2$ in homozygous translocation T6-10b (6L.17,10L.14) showed 65 $Y\ Su_2$:110 $Y\ su_2$:118 $y\ Su_2$:59 $y\ su_2$ which gives 35.2% recombination and indicates the translocation point to be to the left of y with y on the long arm. Data presented by Patterson (1958 Newsletter p. 64) showed recombination between y and R to be 18.8% in the homozygous translocation placing the break on 6 to the right of y. These two sets of data are compatible only if the break on 6 is in the short arm as Burnham (Genetics, 1950) indicated. If the break on 6 is in fact in the short arm, the possibility of y also being on the short arm is not ruled out.

Herbert H. Kramer

PURDUE UNIVERSITY
Lafayette, Indiana
Department of Botany

1. Intracistron recombination at the Wx/wx locus.

The dependence of the type of starch (amylopectin vs. amylopectin + amylose) produced in a microspore on the genotype at the Wx/wx locus of the microspore itself and not the parental plant allows a test in maize for the occurrence of intracistron recombination. The barrier to the investigation of such a phenomenon in higher organisms is our inability to handle populations of sufficient size to detect the infrequent recombinants if such exist. In this system, however, the requisite numbers are easily available since a maize plant produces millions of microspores and since slides containing 50,000 or more microspores can be prepared and scored in twenty to twenty-five minutes.

If two independently occurring waxy mutants at the Wx/wx locus represent changes at different mutational sites within the cistron and if recombination between such sites is a reality, it should be detectable in preparations from the pollen produced by the F_1 between the mutant stocks. One of the products of recombination would be a reconstituted functional locus; in this case some amylose would be formed, and a microspore carrying such a locus would stain black with a KI, I_2 stain in contrast to the brownish color typical of waxy microspores. Where in a cross between 2 waxy mutants the frequency of such black (normal)