reported to have a higher recombination value in microsporogenesis, i.e. when the F_1 is used as the male parent.[3] Greater pollen abortion than ovule abortion in the pericentric inversion 5A (5S near centromere, 5L.50) heterozygote has been attributed to the occurrence of more crossing over in the male flowers. In 1969, I reported that the Y-su_2 region in chromosome 6 had significantly more recombination in megasporogenesis (Genetics 61:117-127). This conclusion was based on data from seven reciprocal backcrosses (6422 progeny). More extensive tests are reported here involving two unrelated inbred lines and three additional sources of su_2.

The experimental approach was simply to reciprocally backcross the F_1 to a homozygous y su_2 stock. The same tester plant was used in reciprocal backcrosses with the same F_1 plant. These "exact" reciprocal backcrosses were made at the same time using only the upper ear on the main stalk. The results of these tests are given in Table 1.

Significant differences in recombination for mega- versus microsporogenesis were obtained in every reciprocal backcross. Greater recombination in megasporogenesis, therefore, appears to be an inherent quality of the Y-su_2 region in chromosome 6 (probably representing the physical region 6L.17-.45) which is not affected greatly by the particular genetic background. To my knowledge, this is the only chromosomal region in maize to consistently show more recombination in megasporogenesis. Additional studies are underway utilizing P1 to determine if the difference in recombination extends over the entire Y-su_2 region.

R. L. Phillips

2. New information on interchanges listed as T1-5.*

Symbol	Breakpoints (Longley, 1961)	Chromosomes interchanged
8347	1S.84-5L.51	1,2
8972	1S.56-5S.29	1,5
018-5	1S.53-5L.52	1,2
055-4	1S.32-5L.31	1,8
040-3	1S.17-5L.61	1,2
024-5	1S.09-5L.98	1,2
4331	1L.03-5S.02	7,10
6178	1L.04-5L.05	1,2
48-34-2	1L.19-5L.76	1,4
8388	1L.30-5S.25	1,2

*Supported by N.S.F. Grant GB8742

C. R. Burnham
Richard V. Kowles
J. T. Stout