

## 2. Directed segregation tests - KYS.

The tests for directed segregation are being continued thus far with no very promising leads. In the tests with a stock of KYS inbred there is no directed segregation; but there is segregation for an ms which is linked with the translocation tester. In addition to the partial sterility due to the translocation, there is also segregation for a class with less starch but of nearly normal size. Plants having the latter type and no sterility due to translocation have normal ears.

A possible explanation of the segregation is the following: The translocation stock is assumed to carry the genes Ms (dom. male sterile)  $S^{ga}$  (inhibitor of male sterility) reported by Baumann (Abstract Agron. Meetings 1953, p. 79), and Kys is ms s. The cross was: (Translocation<sub>m</sub> x Kys) x Kys. The segregation of 3 fertile:1 male sterile is expected if the translocation stock introduced a type of cytoplasm which permits the expression of male sterility. The results indicate one of the factors is linked with the T6-9b translocation, and is therefore in chromosome 6 or 9.