THE orientation of barley linkage maps on each of the 7 chromosomes has been presented as a major cytogenetic problem remaining in barley (3). Similar conclusions about the orientation of the linkage map upon chromosome 7 have been reached by Ramage and Suneson (6) and Kramer and Blander (3). Kramer and Blander have also presented data orienting the maps upon chromosomes 1 and 6.

The barley linkage maps have been summarized by Robertson et al. (7) and the association with the numbered chromosomes has been established by Ramage et al. (3).

**EXPERIMENTAL PROCEDURES**

Close linkage of one terminal gene of a linkage map with a translocation breakpoint in the short arm of the associated chromosome and of the other terminal gene with a breakpoint in the long arm will orient the linkage map upon the chromosome.

Normal vs. triple awn lemma (Tr,tr) was chosen to represent one end of the linkage map for chromosome 2 (Figure 1) while normal vs. orange seedling (Or,or) was selected to mark the other end. In the crosses involving Oror, the non 6-row vs. 6-row factor (V,v) was also studied. Translocations T2-3e, T2-3f, T2-7b, and...