

### 3. Influence of length of day on pollen fertility restoration.

Since male sterile material shows a tendency toward fertility under the short day lengths in Florida during the winter an experiment was set up during May in the greenhouse to determine the effect of long day length on materials with restorer genes. Supplementary lighting was provided from 11 p.m. to 2 a.m. from the first week after the seed was planted until maturity. No appreciable response to the increased photoperiod was observed with the exception of progenies of (male sterile x K63) and (male sterile x Tx581) in which sterile plants did occur. However, in a number of progenies the size of tassels was greatly reduced and the very small tassels produced little or no pollen. The fifteen good restorers mentioned in the paragraph above with the exception of K63 showed no sterility under the long day conditions.

Joyce Blickenstaff  
D. L. Thompson  
P. H. Harvey