

## 9. Abnormal germ position.

In an  $F_7$  inbred line from the breeding program here at Minnesota, 20-35% of the kernels on the ears have their germ in an abnormal position; i.e. the germ face is toward the butt rather than the tip of the ear. The percentage is variable. The character is being studied in reciprocal crosses,  $F_2$  and backcrosses. The study is not completed but the character seems to be inherited in a relatively simple manner; i.e., with one or possibly two major factors being involved. As might be expected, it behaves as a maternal plant character as shown by the results of the following crosses:

A188 x abn. germ x normal (7 crosses)

abn. germ x A188 = 25.6% (avg. of 6 crosses)

(abnormal gem x A188) x abn. germ = all normal ears

abn. germ. x (abn. germ. x A188) = ears with abnormal germ positions

Another inbred line from Dr. F. S. Warren, Central Experimental Farm, Ottawa, Canada, has a similar character but in a much higher frequency, 92% of the kernels on the ears show it. It gives a similar behavior in reciprocal crosses. Crosses with my stock show that it is due to different factors. F. G. Brieger in the 1948 Corn Genetics Cooperation News Letters No. 22, reported a similar character.

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