8. Anti-inhibitor effect of bz_2.

Kernels of C^i C C Bz bz_2 bz_2 constitution have considerably more color than either homozygote for bronze-2. The color is at least as dark as that of A^d. Although further tests are needed, it presently appears that a single dose of C^i and one or two doses of bz_2 are necessary for the effect.

9. Intensely pigmented tissue cultures.

Successful cultures of young endosperms, doubling in size in 6 weeks, were obtained last Spring. Intense pigmentation was produced through the use of in. Tester lines (a_1, a_2, bz_1, c, C^i, r) converted to su in are now available in addition to ACR Pr su in, which is the type cultured. Sugary is required according to Straus and LaRue (Amer. Jour. Bot., 1954). The medium is the tomato juice one which they used:

White's mineral stock	100 cc
Ferric citrate solution, 0.25%	4 cc
Nitsch' trace elements	1 cc
Sucrose	30 gm
Agar	10 gm
Tomato juice (see below)	200 cc
Water (double distilled)	to 1 liter

The tomato juice is made with one can of dietetic tomatoes, blended, filtered, and adjusted to pH 6.5-6.8 with 0.2M NaOH. The medium is poured into small screw-cap bottles and autoclaved complete. Additives of kinetin (10 micrograms per liter) and corn milk were tried in all combinations with and without tomato, but tomato alone was as good as or better than any other. Inoculations made at 10 or 11 days post-pollination were successful, but not 9, 13, 14, 15, 16, 17, 19, or 21 days (inoculations were all made in one day, from greenhouse material). Pieces of ear were surface-sterilized 10-15 minutes in 20% Clorox, and whole endosperms were removed with a sterile scoop.

10. Test for doubleness at C locus.

For the population reported last year, all tests are complete, and no cases of crossing over within C^i have been obtained. For the four assumed structures, maximum map distances for C to I are:

I C:	0.00032	map units maximum.
C I:	0.00032	map units maximum.
I c:	0.064	map units maximum.
c I:	0.079	map units maximum.