expression of <u>Wc</u> (white cap) in contrast to <u>Wh</u> (lemon endosperm) was not clearly distinguishable in the testcross ears, but some variation in the endosperm color was suspected, so separations were made of 10 darker yellow and 10 lighter yellow from each ear. The plants were classified for <u>bk</u>₂, which shows about 25% recombination with <u>Wc</u>. The darker yellow class showed a <u>+:bk</u> ratio of 55:36, the lighter class 46:41. In addition, among the class chosen as possible yellow exceptions (for progeny test as above) the ratio was 16:7. The separation of <u>Wc</u> from <u>Wh</u> is by no means perfect, but <u>Wc</u> kernels seem to be slightly more yellow. This agrees with earlier impressions of <u>Wh</u> versus <u>Wc</u> classification.

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6. Dominant dilute aleurone color factor on chromosome 7.

A factor with dilute expression has been located near <u>in</u> on chromosome 7; it is tentatively designated $\underline{\text{In}}^D$. Progeny from $\underline{o_2 + \text{gl}} / \underline{+ \text{In}^D} + \underline{x} \underline{o_2 + \text{gl}}$ were as follows:

$$\frac{+ \ln^{D} + \frac{o + gl}{111}}{109} \frac{+ + gl}{111} \frac{o \ln^{D} + \frac{h}{11}}{4} \frac{o \ln^{D} + \frac{h}{11}}{5} \frac{e^{h} + \frac{h}{11}}{5} \frac{o + h}{4} \frac{e^{h} + h}{11} \frac{e^{h}$$

The expression of $\underline{\text{In}}^{\text{D}}$ is quite clear, even in the presence of $\underline{\text{o}}_2$. Homozygotes have very faintly pigmented aleurone tissue. In homozygous $\underline{\text{pr}}$, the aleurone color is a unique lavender. No plant color effect can be detected.

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7. The development of pigments in germinating colorless seeds.

Germinating seeds of \underline{c}_1 tester synthesize anthocyanin pigments in the aleurone tissue. The pigments look similar to those of $\underline{A}_1\underline{A}_2\underline{C}\underline{R}$ genotype, yet less concentrated. There are some variations among \underline{c}_1 kernels from different sources, in the sense of quantity and quality. Certain lines can develop very strong and uniform pigmentation while certain others develop little or none. Plant color genes, \underline{B} and \underline{P}_1 , may control