5. A second occurrence of a pleiotropic gene.

In the 1944 News Letter (18:2-3) the writer reported a mutation in inbred lines Kys in which a selfed ear segregated approximately 3:1 for normal yellow and ivory colored kernels. The yellow kernels produced green seedlings with a few exceptional albinos, and the ivory kernels produced albino seedlings with a few exceptional greens. It was concluded that a single gene was involved and that the exceptional individuals were due to hetero-fertilization.

A selfed ear from the single cross WF9 x Ia 153 grown in 1952 unexpectedly segregated for dark yellow and light yellow kernels in approximately a 3:1 ratio. When germinated, the dark yellow kernels produced mostly green seedlings and the light yellow kernels produced albino seedlings. Of 19 progeny plants grown from the dark yellow kernels in 1953, 6 were homozygous dark yellow and produced only green seedlings and 13 were segregating dark and light yellow kernels which when germinated produced mostly green and albino seedlings respectively. Actual counts from the 13 segregating ears were as follows:

	Seeds produced	Seeds planted	Green Seedlings	Albino Seedlings
Dark yellow	5031	650	624	3
Light yellow	1606	650	11	609

Of 4 progeny plants grown to maturity from the exceptional green seedlings arising from light yellow seeds, all were heterozygous and segregated for seed color and albinism.

Apparently the behavior is exactly the same as in the case described previously. Unfortunately the Kys stocks are lost so that appropriate tests for identity of the genes cannot be made.

A. M. Brunson