

11. A line with 2-3% haploids.

A genetic inbred obtained from C. R. Burnham in 1950 for use as a purple-aleurone stock has been found to have a very high frequency of haploids in self progenies. The line was an accession from Northrup King Seed Company, "late Mexican meal corn, red collar," and is a white endosperm, purple-seeded floury type. It has been designated as "stock 6" for identification. Self progenies from two different sources were planted in 1955: One source Stock 6 maintained by selfing, and the other haploid x sib (1952) selfed two generations. The haploids are easily recognized in the field, since stock 6 is very uniform: haploid individuals are zebra-striped, small, narrow-leaved, erect, linear-sectored with white, and generally "male-sterile." The following counts were made in 1955:

<u>Source</u>	<u>Haploids</u>	<u>Total</u>	<u>% haploids</u>
Stock 6 selfs	15	760	1.97
(hap. x sib) selfs	35	1,222	2.86
Totals	50	1,982	2.52

Poisson distributions show that the two sources do not differ significantly from their sum, and that the difference between the two is barely significant at the 5% level. Further counts in 1956 should determine whether a difference exists.

In outcrosses of stock 6 (R^9) by a R^r haploid tester, selfs from haploid x sib were used as eggparent, and seedlings were classified by tip color in the bench:

<u>Total</u>	<u>Green:</u>	<u>Diploids</u>	<u>Died</u>	<u>Haploids</u>	<u>% haploids</u>
1,085	13	4	3	6	0.55

The difference between 0.55% and 2.52% (or 2.86%) is highly significant. Tests are underway to determine the source of this difference in frequency.

Ample seed of the stock is available.