

4. An Isoallele of colorless pericarp and cob (P^{WR}) arising from medium variegated (P^{VV}).

Among 1215 non- P^{WR} offspring from three groups of matings of the type $P^{VV}/P^{WR} \times P^{VV}$ (the P^{VV} allele being from a common source) the following distribution was observed:

Medium variegated pericarp and cob	1080
Light variegated "	51
Red "	73
Colorless "	11
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	1215

On further testing of the initially colorless mutations arising from variegateds some were found to be very low grade variegateds; other bred true for colorless. Tests involving 1772 plants descended from one such colorless mutation (which first appeared as an unpigmented patch of kernels on a medium variegated ear) have disclosed no mutations to P^{RR} . This mutant isoallele for colorless can be distinguished from ordinary colorless (P^{WR}) in two ways (i) it markedly reduces the grade of variegations in heterozygotes with typical P^{VV} alleles and (ii) like all the P^{VV} alleles tested, but not ordinary colorless, it promotes Ds chromosome breakage.

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