

The homozygous variegated plant on which this ear arose was the result of 6 backcrosses of the standard Wisconsin  $\underline{p}^{vv}$  allele into inbred W9 followed by three self-pollinations. Only one ear in a progeny of 8 homozygous ears showed the darker "pseudo-medium variegated" phenotype. The ear had been pollinated with  $\underline{p}^{wr}$  in 1959 prior to its discovery.

A progeny of 32 ears was grown out in 1960 from this ear of which one was red and 31 were variegated confirming the homozygosity of the parent ear. The  $\underline{p}^{wr}$  male parent had only been backcrossed to inbred W9 three times and so it introduced some variability into the background with the result that the expected medium variegated phenotype of the progeny was somewhat more variable than in a highly inbred background. The suggestion of two distinct classes of variegation was nevertheless thought to be present (14 ears with variegated pericarp darker than the other 17). Which class corresponded with the standard medium variegated could not be determined at once.

Robert I. Brawn

### 3. Blushed pericarp.

The variegated ears in two parallel lines of the ninth backcross of the standard Wisconsin  $\underline{p}^{vv}$  allele into inbred W9 ( $\underline{p}^{wr}$ ) were observed to differ in phenotype in 1959. The one line appeared to be darker than the other, the lighter of the two representing typical medium variegated ( $\underline{p}^{vv}/\underline{p}^{wr}$ ). The difference appeared to be due to an overall darkening of the pericarp and not to a change in the number or size of the red stripes although no exact measurements were taken. Within the line with the darker pericarp, one non-variegated ear with a pale orange or blushed pericarp colour was present. This ear had been selfed. In 1960 it produced 7 blushed pericarp and 1 non-blushed or typical colorless pericarp, red cob ( $\underline{p}^{wr}/\underline{p}^{wr}$ ) progeny.

A medium variegated sib ear with the darker phenotype which has been backcrossed the tenth time with inbred W9 was also grown out in 1960. It produced 7 variegated, 7 blushed and two  $\underline{p}^{wr}$  offspring. The variegated ears in this progeny appeared to consist of 4 darker and 3 standard medium variegated ears.

These observations may be explained if we assume a dominant gene for blushed pericarp which segregates independently of the  $\underline{P}$ -locus, and which in combination with  $\underline{p}^{vv}$  causes the overall phenotype of medium variegated to appear darker.

Robert I. Brawn