

The recessive mutations for the ten known markers were found to be allelic, with the exception of \underline{g}_1 and \underline{gl}_1 which need to be tested. The recovered new mutants were found to breed true and allelic studies are in progress.

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4. High protein opaque-shrunken endosperm.

Induced opaque-shrunken endosperm (MNL 44:178) was found to have high protein (18.0%). Preliminary studies suggest that the shrunken-opaque is not allelic to either \underline{sh}_1 , \underline{sh}_2 , \underline{sh}_4 or \underline{bt}_2 .

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5. Biochemical nature of \underline{bz}_1 and \underline{bz}_2 mutants.

The chemical nature of the accumulated substance in \underline{a}_2 mutant aleurone was reported earlier (MNL 45:169-171). Similar studies were conducted with \underline{bz}_1 and \underline{bz}_2 along with certain other double mutant combinations.

The characterization of the isolated substances was made by the following: 1) Rf values; 2) absorption maxima; 3) visible color; 4) color reactions; 5) response to various diagnostic spraying reagents; 6) thin layer chromatography (Silicagel); 7) paper chromatography. Absorption maxima of chromatographically pure compounds were recorded in 5% methanol-hydrochloric-acid solution on UV specord VIS. The relative quantities of the pigments were determined on a Klett-Summerson photoelectric colorimeter.