

4. Isozymes of four enzyme types among three tissues (meiotic material, leaves and roots) of seven inbred lines.

The four enzyme types tested are esterases, peroxidases, phosphatases and leucine amino peptidase. Bands found in starch gels were either tissue limited or general (found in each of the three tissues). Of the 10 esterase bands, none were limited to meiosis and only one was tissue limited--i.e., one appeared in the leaf only of several inbreds. Some of the peroxidase bands were tissue limited to the leaf but none was limited to meiotic tissue or roots. None of the three phosphatase bands nor the one leucine amino peptidase band was limited to any of the three tissues.

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5. Three C^I alleles.

In MGCNL 42:84, it was reported that three C^I alleles could be distinguished. These were $C^{I(m. coop)}$ from the Maize Genetics Cooperative, $C^{I(mc)}$ from Maiz Chapolote and $C^{I(ZC)}$ from Zapolote Chico. The distinction in the earlier report was by a color matching test.

In a reexamination of this material using isogenic stocks and a colorimetric test this distinction has been confirmed. There are three distinguishable color-suppressing C^I alleles. Isogenicity was accomplished by successively crossing each of the alleles into the color converted W-22. The kernels for each of these isolated lines were obtained from testcrosses onto two color lines, W-22 and an early flint.

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6. Carbohydases of sh_1 .

The relative activities of some carbohydases in developing endosperm tissue of maize varying in gene dosage of the shrunken-1 allele were studied. The activities of ADP-glucose pyrophosphorylase, soluble ADP-glucose:starch synthetase, and α -amylase in shrunken ($sh_1 sh_1 sh_1$) endosperm approximately equaled those activities in normal ($Sh_1 Sh_1 Sh_1$) endosperm 18 days after pollination. The amylase activities in endosperm