

with cold 10% TCA and cold acetone, dried and counted in a Tricarb Scintillation spectrometer. The acid-insoluble counts give a measure of DNA synthesis. MC inhibited the incorporation of ^3H -thymidine into DNA, the maximum inhibition being about 70% at conc. of 200 $\mu\text{g}/\text{ml}$.

The seeds were not killed at this concentration and when returned to MC-free medium, the thymidine incorporation returned to normal in about 12 hours.

D. Sen
N. K. Notani

4. Rates of DNA synthesis in embryos of Black Mexican Sweet strains with and without B chromosomes.

Rates of DNA synthesis were measured by ^3H -thymidine and ^{32}P incorporation in DNA of germs of Black Mexican Sweet strains with and without B chromosomes. The strain with B chromosomes had an average of two B chromosomes. In both cases 10 seeds of each strain were treated with fungicide, washed thoroughly and then incubated in the isotope solutions at 35°C with shaking. Results might have been somewhat vitiated as the germination in the two strains was not uniform. DNAs were extracted by the procedure of Marmur (J. Mol. Biology 3:208-218) after the embryos from the two strains had been matched, homogenized and lysed. DNA solutions were treated with RNase (50 $\mu\text{g}/\text{ml}$) to degrade any RNA. Spots (0.1 ml) were made on filter paper discs, treated with cold 10% TCA and cold acetone, dried and counted in a Tricarb Scintillation spectrometer. The counts are given below:

	DNA Soln. ^3H Cts./min/0.1 ml	DNA Soln. ^{32}P Cts./min/0.1 ml
Strain without B chromosomes	2051	1618
Strain with B chromosomes	1359	1633

While ^{32}P incorporation is equal in the two strains, ^3H incorporation is considerably lower in the strain with the B chromosomes. No unequivocal conclusions are possible.

D. Sen
N. K. Notani

5. Effect of change in chromosomal position of endosperm markers in maize on their radio-sensitivity.

It has been shown that the loss of endosperm markers following pollen irradiation in maize is dependent on the absolute (pachytene) length of the chromosome arm and on its position in that arm. Although, evidence