

2. Chromosome knobs in maize types from the Sikkim region.

During the course of a cytogenetic survey of maize types cultivated in the Sikkim region some types from that area have been analyzed and reported below.

M 306: 9 knobs were observed, one each on the long arm of chromosomes 2, 4, 6 and 7, two on chromosome 8 and one each on the short arm of chromosomes 2, 3 and 9. There is a chromomere on the short arm of chromosome 1.

M 308: 7 knobs were observed, one each on the long arm of chromosomes 4 and 6 and two on chromosome 8 and one each on the short arm of chromosomes 2, 3 and 9. There is a prominent chromomere on the short arm of chromosome 1.

M 303: 6 knobs were observed, one each on the long arm of chromosomes 2, 4, 5, 6 and 7 and one on the short arm of chromosome 9. Two chromomeres are present on the short arm of chromosome 1, one on the short arm of chromosome 3 and one on the long arm of chromosome 6.

Except the knob on the short arm of chromosome 9 which is terminal, the rest are interstitial in all the three types.

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3. Increase in the frequency of plants with chromosomal interchanges in a mixed population of *Coix aquatica*.

Cytological abnormalities in two populations of *Coix aquatica* (obtained from Orissa and Madhya Pradesh) were reported earlier (MNL 39:183-184, 1965). These two populations and a third population from Andhra Pradesh were grown side by side in an experimental garden. From a random seed lot taken from the total seed harvested from open pollinated (naturally outbreeding) plants of the three populations, a mixed population was raised the next year. The process of collection of random seed lot from the bulk seed and raising the progeny the following year was repeated four times. This year 72 random plants of the mixed population were scored cytologically to see whether all the categories of cytological variations reported earlier persist in the mixed population also and with the same frequency. The variations observed presently were mostly chromosomal interchanges, a few cases of accessory chromosomes and a single case of aneuploidy. Polyploidy, even as sectorial, was not observed. The categories of cytological variations, their frequency and percentage of occurrence in the mixed population are given below.