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Studies on Cytogenetical Variation in Prosopis cineraria (Linn.) Druce – A Key Stone Tree Species of Indian Desert

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Abstract

Prosopis cineraria (Mimosaceae) is an important tree of agro-forestry and ethano- botanical importance with multipurpose utility as wood yielding, fodder, food and medicinal uses. Some remarkable features are observed in the form of phenotypic variation in various populations inhabiting different regions of the Indian desert. To asses these variations male meiotic studies were conducted in ten different accessions collected from four proviences of Rajasthan, India. Analysis of data on chromosome associations, chiasma frequency and their distributions pattern concluded that the somatic chromosome number of P. cineraria is 2n = 2x = 28. The complete absence of accessory chromosomes (B) and percentage of pollen stainability indicates an overall genomic stability in P. cineraria. Numerical changes like aneuploidy might have played an important role in origin and adoptation of P. cineraria against all the odds of the climatic condition of the Indian desert.

Key words: Aneuploidy, Chromosome associations, Chiasma frequency, Genetic variation, Meiosis, Pollen stainability, *Prosopis cineraria*.

Reference

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