

# ASSESSMENT OF GENETIC DIVERSITY IN CHRYSANTHEMUM (*CHRYSANTHEMUM MORIFOLIUM* RAMAT) USING MICROSATELLITE MARKERS

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**Abstract:** The genetic diversity among 24 chrysanthemum cultivars was investigated by 07 Simple Sequence Repeats (SSRs). A total of 16 bands were produced out of which 15 bands were found polymorphic and 01 band monomorphic. The number of polymorphic fragment varied from 02 (RM1) to 03 (RM433) with an average 2.14 fragment per primer and percent polymorphism varied from 66.75 to 100% with an average of 93.75%. The PIC varied from 0.42 to 0.95 with an average of 0.74. The RP and MI ranged from (0.83 to 0.57) to (4.0 and 2.76) with an average (2.03 and 0.57) respectively. The UPGMA clustering revealed two major groups and found considerable amount of genetic diversity. Among the 24 cultivars, Ravikiran, Selection 44, Kundan, Terri, Sonton and Poncho are divergent and may be used for breeding programme. Results suggested that SSRs are highly useful for assessing the genetic diversity analysis among the chrysanthemum germplasm and parental selection studies in chrysanthemum.

**Keywords:** Chrysanthemum, molecular characterization, SSR marker, genetic diversity

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