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Molecular characterization of hybrids and landraces of sapota by RAPD markers

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ABSTRACT : Molecular characterization of 6 land races and 6 hybrids of sapota were studied using PCR based random amplified polymorphic DNA (RAPD) markers. DNA isolated by CTAB method was used for amplification of 48 markers by using 7 RAPD primers. All 48 polymorphic fragments were used to generate the similarity matrix and construct a dendrogram. Among landraces the round shaped fruit bearing landraces were grouped in cluster-I, and 'Cricket Ball (Udupi)', 'Cricket Ball (Sirsi)' were closely associated with each other as they were having distinctively round shaped fruits and they were 78 per cent similar. Cricket Ball (ARSA)', 'French Indochina', 'Cricket Ball (Udupi)', 'Cricket Ball (Sirsi)' were closely associated with 'Variegated Sapota' as it is having round shaped fruits. Among hybrids 'DHS-1', 'DHS-2', 'PKM-2', CO-1' and 'CO-3' which were grouped together because of their oval and round shaped fruits with spreading and single bearing habit.

KEY WORDS : RAPD, Molecular characterization, Jaccard's co-efficient

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