

Title Genetic evaluation of some mango cultivars on relation to the chilling injury and storage ability

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Abstract

Green mature mangoes, *Mangifera indica* L. (Ewais cv. as yellow and Zebda cv. as green variety) were harvested at fully mature stage and packed in carton boxes in single layer then stored at chilling temp.(5°C) and non chilling temp.(10°C) for three weeks. The mesocarp tissue to determine the membrane permeability by Electrolyte Leakage % (EL%) and fatty acids composition. The genetic relation among 7 cvs. were determined based on the DNA bands. EL% for Ewais cv. increased dramatically in 24 hrs. at 25°C+2 after 3 weeks of storage at 5°C, and the unsaturated fatty acids (14, 16, 18c atom) increased to max. after 7 days and then decreased rapidly and sharply in both cvs. Tolerance of Zebda cv. to CI was more than Ewais (green peel less sensitive than yellow). Only 16 primers gave amplified fragments ranging from 5780bp to 83bp. 127 bands were scored for the 16 primer. Specific RAPD markers for the cvs. peel were identified. The dendrogram of the cluster analysis was divided into clusters; one for green cv. and the other for coloured cv. The studied cv. possess a high degree of genetic diversity and these markers facilitate the management of mango germplasm for breeding purpose.