Molecular Analysis of Genetic Stability of Citrus Algerian Varieties Regenerated By Somatic Embryogenesis

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Abstract

Somatic embryos were regenerated in vitro by style–stigma of different Algerian citrus species. Is one of the efficient methods in virus and virus like elimination? However Somaclonal variation could occurs in plants regenerated by somatic embryogenesis. Therefore, the source plant and fifteen regenerants, resulting from different embryogenic events, were selected for genetic stability analysis. Inter simple sequence repeats technique was used to analyze the genetic variability of regeneted plantlets. A total of twelve primers were used to amplify the DNA. Only bands showing consistent amplification signals in the range of 200 bp to 2.6 kb were considered. No somaclonal variability was observed in C.limon platelet. However, the amplification while smeared and weak bands were excluded. In C. limon, the ISSR primers gave rise to a mean of 111 amplification products, all monomorphic among the analysed plants while in group Navel of C.sinensis the markers have generated a mean of 113.5 well resolved bands which were observed to be polymorphic.

Keywords: Citrus, Algerian varieties, ISSR, Somaclonal variation