

# Evaluation of genetic variability in micropropagated propagules of ornamental pineapple [*Ananas comosus* var. *bracteatus* (Lindley) Coppens and Leal] using RAPD markers

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**ABSTRACT.** The objective of the present study was to evaluate the genetic variability in micropropagated plantlets of ornamental pineapple, after the fourth period of subculture. The basal culture medium consisted of MS salts, vitamins, 3% sucrose, liquid formulation, supplemented with 6-benzylaminopurine (BAP) at concentrations of 0.125, 0.25, 0.5, 1.0, and 2.0 mg/L. The addition of BAP influenced the occurrence of genetic variation revealed using random amplified polymorphic DNA (RAPD) markers. Of a total of 520 primers tested, 44 were selected and amplified; 402 monomorphic bands (97.2%) and 18 polymorphic bands (2.8%) resulted among regenerated plantlets. The polymorphic fragments were produced by 12 primers (OPA-01, OPA-20, OPB-01, OPB-19, OPC-19, OPF-13, OPL-17, OPM-13, OPP-16, OPT-07, OPV-19, and OPX-03). Among the primers that identified polymorphism, OPA-01, OPA-20, OPB-19, OPC-19, OPL-17, OPP-16, and OPX-3 each showed, one polymorphic band and OPF-13 amplified a maximum of three bands. In this study, the RAPD technique was effective in showing the occurrence of

somaclonal variations that occur during the micropropagation process of ornamental pineapple cultivation in BAP-supplemented medium, and it is possible to detect the presence of genetic variation in early stages of plant development.

**Key words:** *Ananas comosus* var. *bracteatus*; Somaclonal variation; Genetic variation; *In vitro* culture; Mutation