

## Identification of sugarcane (*Saccharum* sp.) micropropagated clons by isoenzyme electrophoresis

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### Abstract

To establish a sugarcane “seedbed”, it is necessary to guarantee the varietal purity of the donator plants and of the “seedcane” obtained by micropropagation. Identification by means of morphological characters is difficult because they are numerous and influenced by the environment. The chromosome recount is subject to errors owing to the great number of small size chromosomes and the existence of euploidy and aneuploidy phenomena. The isoenzyme electrophoresis from its molecular polymorphism, permits the realization of varietal identification patterns. The objective of this work was to identify micropropagated clones of sugarcane (RA 87-2, LCP 85-376 and LCP 85-384) and of donator plants by isoenzyme electrophoresis of esterases and peroxidases. The vertical electrophoresis was realized in polyacrylamide gel in a discontinuous buffer system. From the esterases and peroxidases patterns dendrogrames were made by means of the NTSYS Computer Program, version 2.0 that quantified the analyzed clone relationships. The enzyme polymorphism observed in esterases and peroxidases determined the existence of differences among the clones that permitted identifying them. Differences were not found in the donator plant enzyme patterns and in those micripropagated from the same clone.

**Key words:** “seedbed”, peroxidase, esterase, micropropagation, sugarcane.

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