



Short Communication

Operational taxonomic units (OTUs) of endophytic bacteria isolated from banana cultivars in the Amazon

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ABSTRACT. Endophytic microorganisms colonize plants, inhibit the growth of pathogens (by competing for nutrients and/or space), or produce antagonistic substances. Fifty-five endophytic bacteria were isolated from the leaf tissue of the FHIA 18 banana cultivar. Genetic diversity analyses were performed using the enterobacterial repetitive intergenic consensus sequence polymerase chain reaction method and BOX molecular markers. These analyses resulted in 33 and 21 polymorphic bands, respectively. The similarity data, obtained using the Dice coefficient based on the polyphasic analysis method, ranged from 22 to 100%. This indicated a high genetic diversity among the analyzed isolates. Sixty percent similarity was utilized as the cut-off criterion for the formation of operational taxonomic units (OTUs); this resulted in the identification of 32 possible OTUs, indicating

a high number of potential species.

Key words: BOX-PCR; Endophytic bacteria; FHIA 18 banana cultivar; Operational taxonomic units; Enterobacterial repetitive intergenic consensus sequence polymerase chain reaction