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Characterization of *Mangifera indica* accessions based on Brazilian adapted UPOV descriptors

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Abstract

The goal of this work was to characterize 103 mango accessions of the field Germplasm Bank of Embrapa Semi-arid, located in Juazeiro, Bahia, Brazil, adopting 50 descriptors established by the Brazilian Ministry of Agriculture, Livestock and Supply, to help in the development of new mango cultivars for the Northeast region of Brazil. Four plants were used, with eight adult leaves, eight flowers and 16 fruits being collected per plant, resulting in a total of 32 examples per accession. Characteristics were evaluated from the plant size to the seed embryo. Simple percentages were estimated for all the descriptors and photographs were obtained for some of the descriptors, principally for those related to the fruit. Only the descriptors leaf symmetry and fruit waxiness did not present variation among the accessions. Eight accessions did not present fruits with fibers while others nine accessions presented pulp firmness, which are important characteristics for breeding improvement. The soluble solids content was high, above the 14°Brix, for 95% of the accessions, with Tommy Atkins presenting the lowest value, 12.5°Brix. There was a great diversity for the color of the epidermis ranging from green to red. The accessions Amrapali and Salitre presented a dark orange color for the pulp. The obtained data, the most comprehensive so far in Brazil, can help in the choice of the best parental to develop populations with desirable attributes and also contribute to the protection of mango cultivars in Brazil, according to the descriptors established by Brazilian legislation.

Keywords: Mango, Germplasm Bank, Accessions.