Title Quality of plated cereus (Cereus jamacaru D.C.) fruit harvested in different maturity stages

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Abstract

Cereus jamacaru D.C. (Plated cereus, 'Mandacarú') is a native cactus from the warmer, drier areas of Brazil, being the symbol of the arid and semi-arid lands of the Brazilian Northeast. This is a columnar cactus whose fruit has high acceptance by the local population and the stem is used for animal feeding during severe drought season. "Mandacaru" is a tree-like, that can reach 7 up to 30 feet tall (9 m), segmented stems, 4 to 6 inches wide (10-15 cm). Mainly due to its mucilage content, the stem of this cactus has also been used as medicine-like products and cosmetics; however, the fruit needs to be better exploited for human consumption. Due to its important social-economic role for the local population, this work aimed at studying the quality of "Mandacaru" fruits harvested in eight maturity stages from Boa Vista Municipal District, Semi-Arid zone of Paraiba State. The fruit is ellipsoidal shaped, presenting in an average 263.7 g of weight, 61.5% of pulp yield, length of 99.6 mm, diameter of 72.9 mm, and pericarp 0.61 cm thick, which did not differ among maturity stages. The highest content of soluble solids and the higher titratable acidity was found for the maturity stage E3 and E4. The ascorbic acid content was 34.73 mg.100g⁻¹ for the maturity stage E4. Carotenoids decreased as maturity progressed. The intensity of color increased with the ripeness, and the mean values for the hue angle was 14.36, and for chroma and lightness were 30.72 and 35.34, respectively.