

ISOLATION AND PARTIAL CHARACTERIZATION OF PECTIN PRESENT IN THE CLADODES OF AN *OPUNTIA FICUS INDICA* GENOTYPE, EMPHASIZING AGE AND SEASON.

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Cladodes of palm are a new source of fiber in human nutrition. The main constituent of this fiber are polysaccharides, in which pectin is the predominant sugar. Palm is an easy culture of low cost, therefore it becomes necessary to study pectin present in the cladodes. The aim of this work was to compare to the content of uronic acid before and after isolation of pectin from cladodes of the giant palm and the chemical composition of these polysaccharides in accordance with the age and season. The results showed that uronic acid content in the summer samples was higher in the new cladode (4.00 mg/mL), while in the winter the higher amount was found in the old cladode (3.40 mg/mL). However a higher content of uronic acid was also observed after the isolation of pectin in the new cladode (2.92 mg/mL for pectin soluble in water and 3.72 mg/mL for pectin soluble in EDTA). Chromatography analysis (thin layer chromatography and HPLC) showed the presence of fructose, xylose, and uronic acid. Overall, the new cladode of this genotype showed a higher content of uronic acid with significant difference as regards the season, indicating that the new cladode possess predominantly pectin since these are part of a complex polysaccharides which contains D-galacturonic acid residues.

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