

POLYSACCHARIDES FROM THE PULP OF *THEOBROMA GRANDIFLORUM*
(CUPUAÇU)

Vriesmann, L.C., Bento, J.F., Silveira, J.L.M, Reicher, F., Petkowicz, C.L.O.

Departamento de Bioquímica e Biologia Molecular, UFPR, CP 19046, CEP 81531-990, Curitiba-PR, Brasil.

Cupuaçu (*Theobroma grandiflorum*) is a tropical rainforest tree cultivated in the north of Brazil. The white pulp of its fruit has a pleasant acidic taste and a strong fragrance. It is used in ice cream, domestic jellies and jams. The pulp is described to contain theacrine (1,3,7,9-tetramethyluric acid). However we did not find any data on its polysaccharides. The pulp from fruits of cupuaçu were now milled, treated with MeOH-H₂O and defatted with *p*-Tol-EtOH. The residue was submitted to sequential extractions with water, aqueous citric acid and aqueous NaOH. The yields of the extracted polysaccharides ranged from 0.3% to 15%. The three main fractions were solubilized, respectively, in 0.1% citric acid at 100°C (0,1CA-2, 15% yield), 0.5% citric acid at 100°C (0,5CA-2, 8% yield) and water at 25°C (W-1, 7% yield). Fractions 0,1CA-2 and 0,5CA-2 were starch-rich (90.8 and 87.2 mol% of Glc, respectively). The monosaccharide composition of W-1 was Rha-Fuc-Ara-Xyl-Man-Gal-Glc-uronic acid in a molar ratio of 3:1:6:4:1:13:7:65, suggesting the presence of pectins. Almost all the alkaline fractions having a high content of Xyl, Man, Gal and Glc. Rha and uronic acid were also found in lower proportions. The data suggest that the main polysaccharides in the pulp of cupuaçu are starch and pectins.

Supported by CNPq, CAPES and PRONEX.