DETERMINATION OF POLYPHENOLOXIDASE AND PEROXIDASE ACTIVITIES IN PULP AND TROPICAL JUICE OF AÇAI (*Euterpe oleracea* Mart.)

Paula, G. A.¹, Cavalcante, P. M.¹, César, L. T.¹, Miranda M.R.A²., Brasil, I. M.¹

¹Departamento de Tecnologia de Alimentos, Universidade Federal do Ceará, Ceará, Brazil. ² Departamento de Bioquímica e Biologia Molecular, Universidade Federal do Ceará, Ceará, Brazil.

The exotic tropical fruits are potentially attractive for the increasing market of fruit juices and based fruit drinks by the diversity of aromas and "flavors" beyond the nutricional value. Açaí (Euterpe oleracea Mart.) are rounded, dark purple berries widely distributed in the Amazon estuary floodplains. Considerable interest has been generated by its high anthocyanin and antioxidant capacity and healthrelated implications of its consumption. However, few studies have been conducted. Peroxidases and polyphelnoloxidases which both are found naturally in fruits and berries themselves are common anthocyanin degradation enzymes. The objective of this study was to investigate the activities of polyphenoloxidase (PPO, EC 1.14.18.1) and guaiacol peroxidase (G-POD, EC 1.11.1.7) in açaí pulp and tropical juice. Pasteurized, frozen acaí pulp was obtained from local industry (Fortaleza, CE). The tropical juice was formulated using 30% of açaí pulp. The determination of PPO and G-POD activities was carried out as described (MATSUNO e URITANI, 1972). It was observed a 278 UAE/g.min and 1752 UAE/g.min in pulp and 93,39 UAE/g.min and 439,8 UAE/g.min, in tropical juice of PPO and POD activities, respectively. The results suggested that due to high activities of PPO and POD of agai pulp this product is highly perishable.

Word-Key: Açaí; Euterpe Oleracea; PPO; POD.

Acknowledgements: FUNCAP, UFC