Use of peach-palm fruit (Bactris gasipaes H.B.K.) in development of products with high content of bioactive compounds

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Quantification of bioactive compounds has been reported on fruits because of its action as antioxidant compounds having a prevention role in some diseases and, in the case of carotenoids as a source of provitamin A compounds. Besides, several studies have demonstrated the effect of food-processing on bioactive compounds, other nutritional components (protein, starch, fat, fiber, and minerals), and antioxidant capacity. We studied the effect of heat treatment on the physicochemical composition and antioxidant capacity of peach-palm fruit when processed into products made with cooked peach-palm fruit and peach-palm flour. The main physico-chemical characteristics of cooked peach-palm fruit, mashed peach-palm, bread, cookies and a sweet snack were assessed, including total contents of phenolic compounds, carotenoid and antioxidant activity determined by H-ORAC method. No significant changes were found for contents of fat, protein, starch, and dietary fiber during flour production. Cooked peach-palm fruit is a source of Mg, Mn, Cu, and K, with 100 g of fruit containing between 5% and 13.5% of recommended daily intake. Cooking the fruit will increase carotenoids by 17%, thus helping to compensate for the 28% loss during drying. Polyphenols and H-ORAC were not affected by processing. Carotenoid and polyphenol contents and, H-ORAC in developed products ranged between 9-298 µg β-carotene/g, 0.2-73.5 mg gallic acid equiv./100g and, 15-38 µmol Trolox equiv./g, respectively (DW), where bread, cookies and the snack were formulated with 10-15% of peach-palm flour. Overall, peach-palm fruit showed potential for use in development of functional foods due to its high bioactive compound content.