Anthocyanins content and antioxidant capacity of freeze-dried açai pulps

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Açai (Euterpe oleracea Martius) is a berry fruit that grows in the Amazon in northern of Brazil with great antioxidant potential due the content of phenolics compounds. Thus açai could promote health benefits possibly by controlling the oxidative stress and reducing the risk of chronic diseases. The aim of this study was to assess the antioxidant capacity of three freeze dried commercial açai pulps from Rio de Janeiro. Three açai pulps samples were selected from 12 different pasteurized and frozen commercial brands according of its total solids content (13-18%). The açai freeze-dried were analyzed based in the açai quality as type 1-2: thick (20-14% total solids) and type 3: medium (13.9-11%) by Brazilian Normative. The analyses were carried out according to ORAC method through gallic acid equivalents/mL by final fluorescence measurements. The total anthocyanins content was determined spectrophotometrically and quantified using g/100 g equivalents of cyanidin-3-glucoside. ORAC results showed significant difference (p<0.05) in dry matter to the pulp 1 when compared with pulps 2 and 3, since the pulp 1 has presented the highest percent oxygen scavenging capacity in gallic acid equivalents per grams (1: 4851; 2: 3781; 3: 3568). The total anthocyanins to samples 1, 2, 3 was 0.99; 0.79 and 0.71mg/g respectively, where the pulp 1 also presented the best result. The work showed that the 2 and 3 freeze dried açai pulps presented no significant differences in oxygen scavenging capacity and to the total anthocyanins when compared with the pulp 1 that also presented the highest values.

Keywords: freeze dried, açai, anthocyanins, antioxidant.

References


