

POLYPHENOLS CONTENT AND ANTIOXIDANT CAPACITY IN CULTIVARS OF ISABELLA AND BRS-CORA GRAPE JUICES FROM TROPICAL REGION OF BRAZIL

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Grapes are important source of antioxidants compounds that can act in prevention and control of some chronic diseases. They are the most consumed fruit in the world 'in natura' or as different products like juice, jelly, wine, pie and others forms. This study aimed to evaluate compounds with antioxidant capacity of juices from two grape varieties cultivated in Brazil. In this way two cultivars (BRS-Cora and Isabella) harvested in February 2011 were analyzed. Juices were prepared by artesanal process known as steam extraction. The phenolic and anthocyanins contents as well as antioxidant activity (DPPH, FRAP and ORAC hidrofílic assays) were performed in juices. ANOVA and Tukey tests were used to compare statistics difference at a 5% significance level. Polyphenols content in Cora juice (2.22 ± 0.02 mg EAG) was 3 times higher than Isabella grape juice (0.75 ± 0.04 mg EAG) and the content of anthocyanins was 4.5 times higher (738.83 ± 13.05 and 154.04 ± 2.01 mg cyanidin-3-glucoside/100mL, respectively). Regression analyses of antioxidant capacity by ORAC, FRAP and DPPH results showed a high dependence of anthocyanins content. Although both juices have shown 100% scavenging of DPPH radical, BRS-Cora grape juice seemed to be a good source of antioxidants when compared with Isabella grape juice. These two Brazilian cultivars from Sub-middle of the Sao Francisco River Valley demonstrated to be a good source of antioxidants and could be more consumed and use by food industry.

Keywords: grape juice, antioxidant activity, anthocyanins and phenolic content.