



Analysis of the physicochemical characteristics of juices produced from grapes harvested at different maturity stages

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Currently the cultivation of grapes for grape juice production has gained ground in new regions of Brazil, as the example in the São Francisco Valley (SFV) located in the Northeastern of Brazil between the parallels 8:09° Southern Hemisphere and 40W longitude in a tropical semi-arid climate. Companies have invested in the production of grape juice on a commercial scale in this region is estimated in 2015 a volume of 1.5 million liters of whole juice. However, viticulture practiced in VSF (Tropical Viticulture) is different from other traditional regions of the world, for the same vine produces two crops per year, with this, the wineries are planning the time when they intended to harvest the grapes and perform production pruning vines at different times, by adopting a scaling system to be distributed crops throughout the month, and several months of the year. The aim of this study was to evaluate how physical and chemical characteristics of the elaborate hp grape juices with cv. Isabel precocious and BRS Violeta, harvested at different maturity stages in the São Francisco Valley. The juices were prepared in triplicate by the "Hot Press". Three maturation Stadiums were evaluated (T1 = 113, T2 = 120 and T3 = 127 days after pruning). The analyzed parameters were total soluble solids (° Brix), titratable acidity (Expressed in g L-1 of tartaric acid), volatile acidity (expressed in L-1 acetic acid g), hue, color intensity (420, 520, and 620 nm), pH and anthocyanins Total (mg L-1). The treatment T1 presented the following results: T1 = 20.7 Brix, pH 3.2 and 0.95 g L-1 of total acidity; Treatment T2 showed 21.9 ° Brix, pH 3.4 and 0.88 g L-1 total acidity; and T3, with 22.1 ° Brix and pH 3.5, total acidity of 0.82 g of L-Tartaric acid 1, showing that evolves the phase of maturation improves Brix, and the pH decreases and the total acidity juices. The volatile acidity of the three juices was below 0.07g L-1 acetic acid. The juices also showed 0.59, 0.57, 0.71 tone respectively. For color intensity, 16.00, 15.38 and 13.56 and 397.68; 369.77 and 319.14 mg L-1 are the total anthocyanins, respectively for T1, T2 and T3. With the increase of the cycle increased the tint and reduces the concentration of total anthocyanins. In conclusion, the juices produced in different stages of maturation showed different physicochemical parameters, which may be adopted simultaneously crops with different maturation stages, scaling up the date of pruning, depending on the desired analytical feature the company if more juice or less sweet or acid, with greater or lesser intensity of color.

Acknowledgements: CNPq