

Analytical characterization of some pasteurized apple juices during storage

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Abstract. The aim of the study was to assess the effect of three weeks of storage on the chemical and rheological properties of apple juices obtained from Idared and Jonatan apples variety. Total antioxidant activity, levels of bio-active compound groups and the viscosity were measured to characterize the investigated juices. The method applied for the determination of ascorbic acid concentration was with 2, 6-diclorophenolindophenol. Total phenols (TP) in apple juices were determined using the Folin-Ciocalteu method and antioxidant activity by the use of DPPH free radical method. The viscosity of apple juices was investigated by a rotational viscometer, Brookfield viscometer (Brookfield Engineering Inc., Model RV-DV I Prime) with RV spindles. During three weeks of storage, different rates of all measured properties have been observed decreasing for both studied apples varieties juices. The juices from Jonatan apples have higher antioxidant activities that are correlated with the higher content in polyphenols and lower values of viscosity.

Keywords: antioxidant activity, apples, total phenols, ascorbic acid.
