

Physico-chemical and sensory quality of pasteurized apple juices extracted by blender and cold pressing juicer

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Abstract. Worldwide, one of the most consumed fruit juices is apple juice, preferred by both adults and children due to its authentic taste, but also due to its nutritional and health benefits. Apple juice contains sugars, malic acid, soluble pectin, vitamin C, phytochemicals and minerals. The production process influences the juice composition. There is a growing market for natural cloudy apple juice, even though fruit juice is mostly consumed as clear juice. The aim of this study was to obtain cloudy apple juice by using a blender and a cold pressing juicer for extraction and to evaluate their physico-chemical and sensory qualities. The apple juice samples were obtained from three different apple cultivars: “Gala”, “Braeburn” and “Golden Delicious”. After extraction, apple juice samples were pasteurized and cooled. In this study, physico-chemical analyzes (like moisture, water activity, pH, titratable acidity, total soluble solids, electrical conductivity, color parameters) were performed immediately after processing and at 7, 14, 21 days of storage at room temperature. The results showed that the investigated parameters of the apple juice samples varied differently depending on both the apple cultivar and the processing method used. Sensory analysis showed that certain types of apples can be suitable for extracting juice using a blender (“Golden Delicious”), while others such as “Gala” apples can be used to obtain juice by cold pressing.

Keywords: apple juice; physico-chemical characteristics; sensory analysis; storage; thermal pasteurization.

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