SUGAR AND ORGANIC ACID PROFILES OF THE TRADITIONAL AND INTERNATIONAL APPLE CULTIVARS FOR PROCESSING

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Abstract

Current consumer trends require food products with „healthy image“. This has led to an increased interest in traditional fruit cultivars and related products. Traditional apple cultivars in Bosnia and Herzegovina are a valuable source of desirable genetic characteristics including important pomological, nutritional and technological characteristics of the fruit. The sugar and organic acid profile of fruit is an important component of chemical composition and provides valuable information regarding the authenticity of fruit products. They also have an effect on the sensory properties and nutritional value of fruit products.

Ten traditional and two international commercial apple cultivars were analyzed, using HPLC, for individual sugars (sucrose, glucose, fructose and sorbitol) and individual organic acids (malic, citric, shikimic and fumaric acids).

Fructose was the most abundant among sugars that were quantified in apple fruit, followed by glucose, sucrose and sorbitol. Malic acid was predominated among the individual organic acids in both traditional and international apple cultivars, followed by citric, fumaric and shikimic acid. It was also found that cultivar had a significant influence on individual sugars and organic acid in the fruit.

Generally, traditional apple cultivars had higher sugar content and lower organic acid in relation to international ones and with respect of this they are sweet and good for direct consumption and “pekmez” production.

Key words: *Apple cultivar, Individual sugars, Organic acids.*