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Production of extra jam from indigenous grape varieties

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Noah, Othello and Isabelle are grape varieties introduced in Europe in the 19th century due to their natural resistance to *Phylloxera*. Since these varieties were directly planted in winegrowers' fields they were called direct producers or direct producer wines. The term came to cover native American species (*Vitis aestivalis*, *V. labrusca*, *V. riparia*, *V. rupestris*) and hybrids obtained from interspecific crossings, either with each other, or with the European common species *Vitis vinifera*. Due to EU Regulation No. 1308/2013, and Croatian Law on Wine (NN 14/14), it is forbidden to produce wine from these grape varieties. In this research, we investigated the possibility of exploitation of these grape varieties for production of jams to encourage local producers to preserve these grape cultivars. The results of investigation showed that the highest soluble solids content had white Noah followed by red Noah, Isabelle and Othello, 22; 21; 19; 18 Brix, respectively. Othello and white Noah had the highest total acid content (1 g/100 g), while Isabelle had the greatest polyphenol content (2.04 mg/mL), and antioxidant activity (2073.93 µmol trolox/100 mL). The main polyphenols in white grape variety were gallic acid, epicatechin, quercetin and caffeic acid, while in red varieties additional anthocyanins were identified (cyanidine-3-glucoside, cyanidine-3-rutinoside, malvidin-3-glucoside and delphinidin-3-glucoside). The soluble solids content of extra jams was set on 60-62%, which is according to the National (Croatian) Law (NN 46/07, 55/11), and directives for production of extra jams. Jam production caused decrease in AOA for 25; 31; 42 and 47% in black Noah, white Noah, Othello and Isabelle, respectively. The amounts of individual polyphenols were lower in jams compared to unprocessed grapes. The smallest change of color, caused by jam production, was measured in Othello (2.22) and Isabelle (2.75) grape varieties.

Biography

Vlasta Pilizota has her expertise in basic research of structure and composition of food (and/or food model systems) such as aroma composition of different food, thermo-physical and rheological properties of foodstuffs, inhibition of browning of fruits and vegetables, safety of minimally processed fruits and vegetables, improving the process for processing and preservation of foods, and the applied research for food processing – industry.

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