THE ROLE OF BERRY FRUITS IN HUNGARY'S FOOD PROCESSING

A BOGYÓSGYÜMÖLCSÖK SZEREPE A HAZAI ÉLELMISZERFELDOLGOZÁSBAN

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ABSTRACT -

The last decade has witnessed an ever-increasing interest in a healthy diet in Hungary. The consumption of more vegetables and fruits contributes to the lower incidence of cardiovascular diseases and cancer. Several studies have shown that berries have antioxidative and anticarcinogenic effects, which are partly proposed to be due to their biologically active components. Our experiments were carried out on berries including strawberry (Fragaria x ananassa DUCH.), raspberry (Rubus idaeus L.) red (Ribes rubrum L.) and black currents (Ribes nigrum L.), blackberry (Rubus caesius L.). Besides the properties of the fresh fruit of different species and cultivars, the following parameters of products processed from these raw materials were also determined: total polyphenol and anthocyanin content, antioxidant capacity, H-donating activity. Sensory analysis of products was also carried out. Our aim was to compare the above detailed parameters of the analysed species, cultivars and products. In the next phase, we will characterize products produced from fruits of a given cultivar to be able to survey which cultivar can serve the most appropriate products according to the highly specialized demand resulting from various diseases. Among the species and cultivars, significant differences were obtained. The differences were 4-6 times higher in polyphenol content and 10 times higher in the anthocyanin content of samples. The closest correlation could be shown between the total phenol content and antioxidant capacity. The increase in the antioxidant activity of fruits followed the next order strawberry < red currant < raspberry < black currant < blackberry. The measured parameters reflected the fruit composition of products: the higher the proportion of black currants or blackberry, the more valuable antioxidant capacity could be determined. With a relevant and purposeful product range, berries can contribute significantly to the establishment of a health protecting diet.

Keywords: antioxidants, berries, polyphenol, healthy diet, sensory analysis