

Aronia berry rich in antioxidants

Polyphenol components (mg/100 g FW) and antioxidant ORAC activity ($\mu\text{mol TE/g FW}$) of 23 samples of chokeberry berries. According to the literature data, proanthocyanidins in fresh chokeberry berries consist of epicatechin units and their content varies between 664 and 2120 mg/100 g 40 Hellström et al. reported that different varieties of chokeberry contain between 80% and 95% extractable proanthocyanidins and oligomers larger than 10 mers account for between 97 and 99.5% of extractable proanthocyanidins 13 The total amount of anthocyanins in the berries studied varied by more than 2.4 times between the samples with the lowest and highest anthocyanin content. The content of total polyphenol compounds and their composition in fresh chokeberry berries is shown in Table 3. As can be seen from the table, chokeberries are particularly rich in proanthocyanidins, anthocyanins and hydroxycinnamic acids.

The amount of ascorbic acid in the investigated samples varied between 37 and 92 mg/100 g FW with an average value of 65.2 mg/100 g FW. This is the third most abundant organic acid in chokeberries, which makes fresh chokeberries a good source of vitamin C. The total amount of organic acids, expressed as the sum of the individual representatives, varies in the range of 712.6-1028.9 mg/100 g FW. There are few studies on the content of organic acids and the composition of fresh chokeberries 36 - 39 All these studies reported that malic acid is the most important representative of organic acids, but in our study it was the predominant in only 6 samples of sugar and organic acid content and composition of chokeberry [antioxidants](#).

Chokeberry fruit nectars (40% fruit content) were prepared according to the following procedure: 5 kg of frozen fruits were thawed at room temperature and homogenized with a laboratory mixer), and the supernatants were further used for the determination of antioxidant activity and the analysis of anthocyanins, polyphenols and proanthocyanidins. The current study provides detailed information on the content and composition of sugars, organic acids and polyphenols in 23 samples of aronia grown under Bulgarian climate conditions.

Article: [Meet the Aronia Berry: A North-American Fruit rich in Antioxidants](#)

Today, chokeberry berries are widespread in Europe and are cultivated as an important industrial crop 6 - 8 They are a valuable raw material for the juice and wine industry and are used as a source of food-grade colourings. The current study presents detailed information on the content and composition of sugars, organic acids and polyphenols in 23 samples of chokeberry grown under the climatic conditions of Bulgaria in 2016 and 2017. Sójka M, Kołodziejczyk K, Milala J. Polyphenolic and basic chemical composition of the industrial by-products of black chokeberry berry.