Title Biochemical Properties of Red Currant Varieties in Relation to Storage

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Abstract

Eleven red currant varieties (*Ribes rubrum* L.) cultured in Serbia were evaluated for some of their biochemical properties such as total phenolics, anthocyanins, ascorbic acid, invert sugar, soluble solid content, and acidity. The average amount of ascorbic acid varied from 50.5–71.6 mg/100 g FW, while concentration of invert sugars ranged from 6.0%–9.0%. The highest amounts of total phenolics and anthocyanins were detected in variety Redpoll (153.4 mg GAE/100 g FW and 19.3 mg/100 g, respectively). Red currants were processed to juice, and the phenolic and anthocyanin contents changed as a result of processing. Berries and juices were long-term stored at −18 °C and changes in phytochemicals were monitored. In berries, storage caused the decrease of ascorbic acid content up to 49%, and a general reduction of total phenolics was also noticed. In juices, total phenolics content increased after one year of storage. In both berries and juices total anthocyanins increased during storage by up to 85% and 50%, respectively. This study demonstrates that certain varieties, namely Redpoll, Jonkheer and London Market are good source of phytochemicals, retaining the nutritional value during processing and storage.