

Effect of storage time on fruit biochemical composition of blue-berried honeysuckle (*Lonicera caerulea* L.) cultivars

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The study aimed to evaluate the biochemical composition of fruit of six blue-berried honeysuckle (*Lonicera caerulea* L.) cultivars depending on storage time in deep freezer (–20 °C). The cultivars were: ‘Bakcarskaja’, ‘Tomichka’, ‘Kamchadalka’, ‘Zolushka’, ‘Roksana’ and ‘Sinaja Ptitca’. The fruit were picked in 2012 and analysed for fruit dry matter, titratable acidity, pH, soluble solids, total sugars and ascorbic acid content. Analyses were performed in three different times, from fresh fruit and from deep frozen fruit after one and after four year of storage. The results revealed that the content of biochemical compounds was cultivar-dependent. The content of titratable acids increased along with the time of storage, being lowest in fresh fruit (1.9 %). Total sugars were highest in fresh fruit (7.0 %), while there was slight decrease in the content after one year of storage (8.6 %) and up to 41.4 % decrease after four years. The content of soluble solids didn’t change remarkably after storage. The ascorbic acid content was also higher in fresh fruit (118.9 mg 100 g⁻¹ in average). After one and four year of storage the loss of ascorbic acid was considerable — 58.8 and 92 %, respectively. The results indicate that the highest concentrations of biochemical compounds are represented in fresh blue-berried honeysuckle fruit, and therefore, the storage of deep frozen fruit more than one year is not recommended.

Keywords: ascorbic acid, deep freezing, soluble solids, sugars, titratable acidity