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Mathematical model for the evaluation of the sea-buckthorn juice preservation

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Abstract The aim of this study was the monitoring of the main chemical parameters of the juice obtained from the sea buckthorn (*Hippophae L*) fruits during preservation. The results allowed lastly the settlement of some mathematics models very nearby of the reality in the strength connection with the prognosis. Sea-buckthorn berries have highly nutritious and medical values due to its big amount of vitamins: C, A, B_1, B_2, E, K, P. Ascorbic acid content is classified after the one found in the rose hips and acerola fruits. Sea buckthorn fruits harvested at the beginning of August have been used for the investigations. The pH values, the reducing sugars and the ascorbic acid content of the juices during preservation at refrigeration temperature were determined. The results have been statistically processed using two types of simple regression models (the linear and the polynomial models). The R squared obtained values denoted strong relationships between the vitamin C content and the time of preservation at refrigeration temperature.

Keywords: sea buckthorn, ascorbic acid, pH, mathematic models.

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