F.29. UTILIZATION OF RED GRAPE POMACE EXTRACT IN THE PRODUCTION A FERMENTED FUNCTIONAL BEVERAGE WITH HIGH BAS CONTENT

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Abstract. The promotion of a healthy lifestyle has led in recent years to an explosive growth in consumer interest in functional products with beneficial health effects. As a result, researchers and manufacturers in the food industry are trying to make the most of the bioactive compounds in these products and diversify their food ranges.
The objective of this study is to produce a functional fermented beverage using anthocyanin extract from red grapes. The elucidation of the principles of anthocyanin extract incorporation and its impact on the chemical, physicochemical, and microbiological transformations of the resulting functional product was studied. Under laboratory conditions at the Department of Oenology and Chemistry, 2 samples of functional fermented beverage with the addition of red grape extract in 5 % proportions were developed. The study samples were examined at the level of physico-chemical and specific indices regarding the content of biologically active substances within the Oenological Research Center/Department of Oenology and Chemistry.

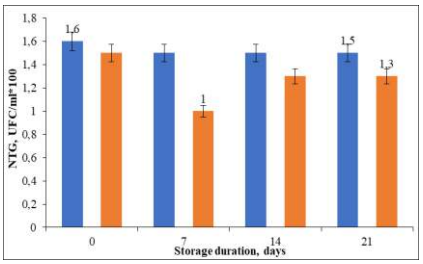

Figure 1. Dynamics of the UFC microbiological test in experimental samples

Table 1. Colorimetric indices of samples.

Nr. crt.	Colorimetric indices	Storage duration, days				
		0	7	14	21	28
1.	L*	67,361 ± 0,36	66,28 ± 0,24	65,08 ± 0,42	68,35 ± 0,14	66,47± 0,21
2.	a*	16,37 ± 0,11	17,56± 0,08	17,43± 0,15	17,15± 0,06	19,83± 0,17
3.	b*	18,41± 0,16	19,06± 0,08	19,84± 0,06	19,32± 0,14	18,84± 0,06

Figure 1 shows that the fermented beverage had a high level of microbiological contamination, between 100 - 160 CFU/ml, this level, according to the requirements of R E.2073/2005, is in the limits between 100 and 1000 CFU/ml of non pasteurized fermented beverage.
The values of the color indices L*, a*, and b* included in Figure 1, indicate that the experimental functional beverage had a color with medium brightness, shades of red-orange and yellow with stable intensity. The brightness (L*) remained constant throughout the storage period within the CIE L*a*b* color space.

Keywords: bio-functional drink, grape by-products, technological properties.

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