VALORISATION OF GRAPE SEED IN THE PRODUCTION OF FUNCTIONAL BISCUITS

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The development of bakery production requires stable activity of enterprises. The modern market of innovative technologies in the field of bakery allows the manufacture of nutritionally fortified or functional products with the use of wine by-products.

Under research laboratory conditions in the TPA department, when preparing experimental batches of crackers biscuits, the mass of wheat flour was partially replaced with that of grape seed (GSF) at the rate of 2 ÷8 % in relation to the amount of flour required according to the recipe. GSF (a mixture of flour seeds of the Pinot Grigio and Chardonnay ampelographic grape varieties, grown on the vineyards of the Criuleni district), presenting a non-gluten nutritional potential, can be used to obtain nutritionally improved products or functional products that have sensory qualities accepted by consumers and increased biological value.

The physico-chemical parameters of the GSF were determined according to the normative and legislative documents in the field of bakery. The results of the present research described the following values for GSF: humidity 4.5 ± 0.22%, ash content 2.66 ± 0.28 %, lipid mass fraction 13.4 ± 0.17 %, protein mass fraction 15.75 ± 0.11%, organic acid mass fraction 2.5 ± 0.02%, total polyphenolic index 25.4 ± 0.3, total polyphenol content 101,62 ± 0,42 mg AG/g d.s and anthocyanins content 4,52 ± 0,38 mg M3G/g d.s.

Obtaining biscuits with the addition of FSS was done in a phase on the basis of the chemical aberrant. The dough samples of crackers biscuits with the addition of GSF showed high viscoelastic properties, the addition of GSF influenced the color of the biscuits, being darker due to the increased content of tannins. Water activity (a_w) in experimental biscuits varied within 0.17 ÷ 0.32 value, decreasing moisture loss and decreasing the elasticity of the finished product.

Keywords: grape seeds flour, quality, fortification, functional biscuits

Acknowledgment: The research was funded by state project 20.80009.5107.09 «Improving of food quality and safety through biotechnology and food engineering», running at Technical University of Moldova.

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