WINE WASTE AS A SOURCE OF NON-CONVENTIONAL RESOURCES IN THE FOOD INDUSTRY

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In the Republic of Moldova an average of 270 thousand tons of grapes are processed and by-products which constitute 45-80 thousand tons. They are not fully exploited. The research is focused on the capitalization of phytonutrients from grape seeds in the form of natural food additives. The grape seeds recovered from the fermented pomace of the Muscat variety were dried and finely ground. The physico-chemical indicators of seeds were determined and the properties of the powder were studied in order to apply it to the fortification of bakery products. Recipes are developed for breads with the addition of 3, 7 and 10% grape seed powder. Also the physicochemical characteristics of the raw and auxiliary material are elucidated. The content of total polyphenols in the powder is determined. As a result of testing the nutritional and functional character of finished products. It has been shown that the addition of fine grape seed powder to bread results in an increase in the nutritional value of flour products. It was found that the sample with the addition of 3% seed powder has the highest sensory characteristics: light brown color, pleasant smell and taste. At the same time the sample with 7% seed powder keeps its shape best. As a result of research grape seed powder is recommended for strengthening bakery products. This food additive with antioxidant properties is also a natural preservative, which preserves the taste, color, texture and nutrients, at the same time slows down food spoilage processes, improves the quality, safety and stability of food during storage.

Keywords: winemaking secondary products, grape seeds, phytonutrients, antioxidants, bakery products

Acknowledgment: The authors would like to thank the Moldova State project 20.80009.5107.09 Improvement of food quality and safety by biotechnology and food engineering