

BIOLOGICAL ACTIVE COMPOUNDS OF HORTICULTURAL ORIGIN FOR CONFECTIONERY PRODUCTS*

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Abstract: Biologically active compounds of aronia fruit, white sea buckthorn, dog rose and grape marc have significant influence on health, and have side effects of dyes [1]. At present, synthetic dyes are used in manufacturing of dairy products, carbonated beverages, sweets, etc. The long-term consumption of these foods containing synthetic dyes has various harmful effects on the health of the consumers. It is known that the most common synthetic colorants - Sunset Yellow FCF, Quinoline Yellow, Azorubine, Allura Red AC, Tartrazine, Cochineal Red A cause children hyperactivity [2]. The use of biologically active compounds of aronia, white sea buckthorn, dog rose and grape marc in confectionery products for the substitution of synthetic dyes is of high topicality. The aim of the research is to obtain bioactive compounds from aronia fruit, white sea buckthorn, dog rose and grape marc, and their use in the formulation of confectionery products.

The chemical composition of bioactive compounds of aronia, white sea buckthorn, dog rose, and grape marc were examined. The extracts obtained have been shown to contain biologically active compounds such as polyphenols, tannins, anthocyanins and antioxidants. Confectionery masses, fondant candies and pralines with the addition of biologically active compounds of horticultural origin have been developed. The physicochemical quality characteristics of the candy correspond to the admissible values, regulated in GD RM No. 204 „Confectionery products”. Based on the analysis of organoleptic indices, physicochemical indicators, microbiological stability, antiradical activity in gastric digestion „*in vitro*” and shelf life, it was found that they are competitive, have functional properties due to the presence of biologically active compounds and can be recommended for consumption.

Research results will contribute to the manufacture of confectionery products capable of mitigating the impact of oxidative stress and nutritional allergies, contributing to the integration of the concept of healthy nutrition and increasing the competitiveness of local businesses.

**This work was benefited from support through the 16.80013.5107.22/Ro project, “The substitution of synthetic food additives with bioactive components extracted from natural renewable resources”.*

References

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