

APPROCHES FOR HONEY-BASED FUNCTIONAL FOODS OBTENTION

Irina-Claudia ALEXA*
Elena-Mirela SUCEVEANU*
Luminița GROSU
Oana-Irina PATRICIU
Irina-Loredana IFRIM
Adriana-Luminița FÎNARU

“Vasile Alecsandri” University of Bacău, Faculty of Engineering, Department of Chemical and Food Engineering,
157, Calea Mărășești, Bacău, 600115, Romania

*Corresponding authors: irinaalexa@ub.ro, mirela.suceveanu@ub.ro

Consumer's growing interest in natural products has encouraged many studies for finding new ingredients applications for functional foods which are characterized by offering various health benefits, as well as nutritional values due to their composition. Among the functional foods are those that can be obtained by enrichment, fortification or fermentation. Honey is a complex product that can itself be considered a functional food, the most well-known functional properties being its antioxidant and antimicrobial activities [1]. Also, honey can represent a very important source for obtaining remarkable functional foods or beverages. In the recent years, Romania has increased its honey production, becoming one the European Union's major producer. A new report from Food and Agriculture Organization Corporate Statistical database (FAOSTAT) shows that Romania productions as high as 25,000 tonnes have been obtained in certain years [2]. In this context, the Romanian honey producers can focus on different possibilities of honey valorisation.

The present study was carried out in order to explore the honey potential for preparing functional foods and beverages with health benefits.

Studying the literature, we noticed that the consumption of mead has begun to gain popularity. However, this fermented beverage is not so well known among the Romanian consumers, even if it is considered among the oldest in the world. Mead, also known as honey wine or hydromel is considered a health tonic due to the presence of its natural and high-quality compounds and can be served as an excellent aperitif or dessert wine.

Therefore, for the present study, one of the approaches for the honey valorization was to obtain several varieties of mead using different types of honey from local producers (linden honey, acacia honey, polyfloral honey, raspberry honey, wild forest honey) [3].

On the other hand, for the present research, another approaches for the honey valorization was the preparation of an innovative product based on acacia honey and grape pomace powder in different proportion [4]. All samples prepared in the present study were physicochemically characterized and then, organoleptically analyzed by a multisensory approach using the scoring method with a 20 and 30 points scale, respectively.

The results of the present study revealed that both artisanal meads and fortified innovative honey with grape pomace are well accepted by the Romanian consumers.

Keywords: honey, valorization, grape pomace, mead, sensory evaluation

References

1. Luchese, R.H., Prudêncio, E.R., Guerra, A.F.: Honey as a Functional Food, in: *Honey Analysis* (editor: de Toledo, V.A.A.), INTECH, London, **2017**, 287-307, DOI: 10.5772/67020.
2. Isopescu, R.D., Josceanu, A.M., Colta, T., Spulber, R.: Romanian Honey: Characterization and Classification, in: *Honey Analysis* (editor: de Toledo, V.A.A.), INTECH, London, **2017**, 27-62, DOI: 10.5772/66321.
3. Suceveanu, E.-M., Alexa, I.-C.: Sensory and physicochemical evaluation of some varieties of Romanian artisanal mead, *Scientific Study & Research – Chemistry & Chemical Engineering, Biotechnology, Food Industry*, **2021**, **22** (2), 235-243;
4. Suceveanu, E.-M., Grosu, L., Alexa, I.-C., Finaru, A.-L.: Valorisation potential of *Fetească Neagră* grape pomace for obtaining honeybased fortified innovative product, *Scientific Study & Research – Chemistry & Chemical Engineering, Biotechnology, Food Industry*, **2020**, **21** (2), 243-252.