

Slovakia – Austrian cooperation in the characterisation of single-species honeys

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The quality and authenticity of Slovak and Austrian honeys of defined geographical and botanical origin is the subject of the project of international cooperation APVV SK-AT-20-0022 between the **NPPC Food Research Institute in Bratislava and the Technical University in Graz, Austria**, the solution of which is planned for the period from 1.4.2021 to 31.12.2022. The project focuses mainly on honey species, which are typical of both countries and are characterized by high quality, especially **rape, acacia, chestnut honey, and honeydew fir honey**. These, but also other single-species honeys obtained directly from beekeepers from Slovakia, respectively in cooperation with the **Institute of Apiculture in Liptovský Hrádok**, and in parallel from beekeepers from Austria, will be characterized in terms of physical, chemical and sensory properties. **We will be glad if you become part of this research and your honey samples (rape, acacia, chestnut honey, and honeydew fir honey, but also others) will be included in this international study. If you decide to participate or need more information, please contact us by e-mail or phone. Thank you in advance!**

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Honey, as a valuable natural product of bees with medicinal and immunostimulating effects, is one of the often falsified commodities, in particular by mis-indicating geographical and botanical origin. Unfair practices include the addition of invert starch and sugar syrups in order to increase production volumes.

Characterisation of honey quality parameters is also important in terms of promoting the competitiveness of honest small beekeepers. Large processors buy honeys of different quality, geographical and botanical origin and process them in a large-capacity way. The resulting quality of the product is also influenced by the processing and storage of the products themselves.

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in the original package) whether free of charge or for payment, please contact us either by phone or by e-mail at the contacts below.

Samples of honey shall be subject to selected **physico-chemical analyses**, both those resulting from Decree No. 41/2012, Z.z. (glucose, fructose and sucrose content, water content, electrical conductivity, **hydroxymethylfurfural content**, which is a parameter of the gentleness of heat treatment, freshness and conditions of honey storage), other parameters such as **antioxidants, polyphenols, carbonyl compounds and the profile of amino acids** that determine the nutritional value of honey will be established. In addition, honey samples will be evaluated by new **methods of sensory analysis, instrumentally using the chromatographic profile** of volatile substances, as well as by **hedonical evaluation** by a panel of trained **evaluatores** using special software for data collection and evaluation. The results of the honey profile analysis will be compared with commercial and long-term stored samples. New knowledge gained during the project will be published in scientific and professional journals and presented at scientific conferences, all samples being thoroughly anonymised. **Candidates to be involved in the study shall be provided free of charge with the results of the determination of their samples.**

The experience gained in bilateral cooperation will be used in the development and harmonisation of methods for assessing the quality and authenticity of honeys and for the training of an expert international sensory panel. The two scientific teams involved are established workplaces for chromatographic and sensory analysis. New modern methods of sensory evaluation can be used to compare the quality and authenticity of products of national production as well as products in the business network. Detailed profile sensory analysis of single-species honeys, which will show honey quality, will support small producers and processors of high quality honey and thus increase their competitiveness on the market.

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