



Department of Biology and Ecology,
Faculty of Sciences and Mathematics
University of Niš
Institute for Nature Conservation of Serbia

ABSTRACTS APSTRAKTI

**14th Symposium
on the Flora of Southeastern Serbia
and Neighboring Regions**

Kladovo 26 to 29 June 2022

**14. Simpozijum
o flori jugoistočne Srbije
i susednih regiona**

Kladovo 26. do 29. jun 2022.

Niš-Belgrade, 2022

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Abstracts

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Organic sunflower honey from the area of Banat (northeastern Serbia) - physicochemical and microbiological characterizations

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Today, special attention is paid to organic honey due to increasing pollution and numerous toxins, and certified organic honey is described as having no chemical pollution, including that related to bee migration in search of good flowers that beekeepers do not directly control. This study aimed to characterize through analysis 5 samples of organic sunflower honey from Banat (Serbia): physicochemical quality parameters (moisture, HMF, diastase activity, free acidity, glucose and fructose content, sucrose and ash) and microbiological safety (presence of aerobic mesophilic bacteria, coliforms, lactic acid bacteria, molds and yeasts). Mean values obtained for physicochemical parameters are: 16.52% humidity, 8.17 mg/kg HMF, 10.8 diastasis activity, 24.07 meq/kg of free acidity, 60.8% of glucose and fructose 0.5% sucrose and 0.01% ash. The microbiota that was isolated from all the samples tested consisted of *Bacillus* spp. ranging from 0.50-0.55 x10⁻² cfu/g and *Saccharomyces* spp., ranging from 0.31-0.44 x10⁻² cfu/g. MALDI TOF confirmed preliminary identification to be *Bacillus pumilus*, while yeasts were identified as *Saccharomyces cerevisiae*. This research could contribute to the valorization of sunflower honey, which would lead to standardization and increase the production of this product.

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