



## Oral presentations

### E501

#### **The role of honey's botanical and geographical origin in its concentrations of macro and micro minerals**

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Honey is a naturally sweet product produced by honeybees, well known for its high nutritional and nutraceutical properties. Besides sugars, honey is also composed of enzymes, amino acids, organic acids, carotenoids, aromatic compounds, vitamins, volatile chemicals, phenolic acids, flavonoids, and minerals. Although found in little concentrations minerals play an important role in the nutritional properties of honey including induction of general metabolism, stimulation of the circulatory and reproductive systems, and catalysis of numerous biochemical reactions.

The composition of honey is affected by many factors. The purpose of this study was to investigate the role of honey's botanical and geographical origin in its concentrations of macro and micro minerals. Sixty honey samples (19 mountain, 26 meadow and 15 acacia) collected directly from Kosovar beekeepers was quantified for macro-minerals (Na, Ca, K, Mg) and micro-minerals (Mn, Ni, Cu, Fe, Zn) by flame atomic absorption spectrometry.

The experimental data analysis such as ANOVA, Kolmogorov-Smirnov test, Levene's, Games-Howell's, Tukey's and Spearman tests was carried out using IBM SPSS 27.

The results of this study showed that the botanical origin affected the content of macro-minerals (K, Mg) and micro-minerals (Ni, Cu, Mn, Zn) while the geographical origin had a higher impact on microminerals than on macro-minerals of honey

### E502

#### **Development of an egg white based semi-hard cheese replacement: the investigation of techno-functional attributes**

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Novel food trends show that free-from products (. e.g., lactose-free, whey protein-free) are going to play a significant role in future's food markets. The accurate techno-functional and sensorial attributes of these products may decide weather the product can endure on the markets.

In this study an egg white based semi-fat and semi-hard cheese alternative was investigated and was compared to a Hungarian Trappist cheese. Dry matter content was examined at 105 °C and water activity and pH at room temperature. Color attributes were measured in CIE Lab color space. The Texture Profile Analysis (TPA) was performed on cylinder shaped samples (d=12 mm, h=12 mm) by using a Stable Micro System with concentric cylinder (d=35 mm), applying 70% compression at 15 °C. Our results show that the egg white based cheese replacement has a slightly brighter color compared to Trappist cheese. The texture attributes such as gumminess and springiness are slightly differing compared to Trappist cheese, however the addition of starch may decrease the differences between the original cheese and cheese alternative. Concluding our results egg white based cheese replacement may reach similar attributes to Trappist cheese. We are very thankful for the financial support of the project 2020-1.1.2-PIACI-KFI-2020-00027..

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