Physicochemical properties and mineral content of honey samples from Vojvodina (Republic of Serbia)

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Abstract

Forty-five honey samples of three honey types – two monofloral (acacia and sunflower) and one polyfloral (meadow) were collected from the Autonomous Province of Vojvodina (Republic of Serbia) and analysed for their physicochemical parameters (moisture, acidity, pH, ash, electrical conductivity, glucose, fructose, hydroxymethylfurfural (HMF), CIE $L*a*b*$ colour and mineral content). All tested physicochemical parameters were in agreement with the EU regulation except for moisture (4 samples) and HMF content (1 sample).

Principal component analysis (PCA) was used for assessing the effects of three honey types on all investigated physicochemical parameters. According to PCA, acacia honey samples can be clearly isolated and form a cluster, while, regarding other honey types, PCA can offer the possibility to distinguish sunflower and meadow honey samples regarding examined physicochemical parameters and mineral content.