

INFLUENCE OF NON-PHENOLIC COMPOUNDS OF HONEY ON ANTIOXIDANT CAPACITY

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Abstract. Honey is a natural product consisting of multiple components which determine its dietary and medicinal properties. Honey of different botanical origin were analyzed for *in vitro* antioxidant capacity and physico-chemical properties. The aim of this study was to establish relationship between non-phenolic compounds (5-hydroxymethylfurfural (HMF) and glucose oxidase (GOD)) and antioxidant capacity considering botanical origin. Antioxidant capacity was measured by the scavenging of 2,2-azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) (ABTS) radical cations. The buckwheat honey showed the highest values of antioxidant scavenging activity, the rape honey – the lowest. HMF contribution to the antioxidant capacity was tested. It had doubtful influence on the antioxidant capacity. Bee secreted compounds (enzymes, proteins, etc.) in honey also might increase antioxidant capacity: it increased strongly in light-coloured honey, and slightly – in dark-coloured honey.

Keywords: ABTS, antioxidant capacity, glucose oxidase, HMF, honey