

Mineral contents and physicochemical properties of natural honeys produced in Al-Qassim region, Saudi Arabia

Khaled A. Osman*, Mohamed A. Al-Doghairi, and Suloiman Al-Rehiyani, Mohamed I.D. Helal

Plant Production & Protection Dept., College of Agric. & Vet. Medicine, P.O. Box 1482, Al-Qassim University, Buraidah, Al-Qassim, Saudi Arabia. *e-mail: kamosman@yahoo.com

The characterization of natural honeys produced in different areas of Al-Qassim region, Saudi Arabia, was carried out on the basis of either their physicochemical properties: moisture, total sugars, pH, total acidity, ash and colour or their metals content. The results showed that the moisture ranged from 14.45-15.15.95; total sugars, 58.98-80.60; pH, 3.88-4.58; total acidity, 10.90-21.84; ash content, 0.139-0.398; and colour, light amber-yellowish and meet all national and international specification. Heavy metals analysis was carried out by using Atomic Absorption Spectrometry to detect pollution in the provinces where the honey samples were collected. Mg was the most abundant element in honey samples followed by Fe, Zn, Mn, Cu, Pb and Cd. All these metals were found in non-significant values and are in safety baseline levels for human consumption.

Keywords: Natural honeys; metal content, Physicochemical, atomic absorption, Al-Qassim

