Microbiological Properties and Mineral Contents of Honeys from Bordj Bou Arreridj Region (Algeria)

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Abstract : The present study aimed to characterize 30 honey samples from the Bordj Bou Arreridj region (Algeria) regarding their floral origins, physicochemical parameters, mineral composition and microbial safety. Mean values obtained for physicochemical parameters were: pH 4.11, 17.17% moisture, 0.0061% ash, 370.57 μ S cm-1 electrical conductivity, 21.98 meq/kg free acidity, and 9.703 mg/kg HMF. The mineral content was determined by atomic absorption spectrometry. The mean values obtained were (mg/kg): Fe, 7.5714; Mg, 37.68; Na, 186,63; Zn, 3,86; Pb, 0,4869 × 10-3 ; Cd, 267 × 10-3. Aerobic mesophiles, fecal coliforms and sulphite-reducing clostridia were the microbial contaminants of interest studied. Microbiologically, the honey quality was considered good and all samples showed to be negative in respect to safety parameters. The results obtained for physicochemical characteristics of Bordj Bou Arreridj honey indicate a good quality level, adequate processing, good maturity and freshness.

Keywords : pollen analysis, physicochemical analysis, mineral content, microbial contaminants

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