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Nutraceutical properties of honey and pollen produced in a natural park

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ABSTRACT

Honey bees and bee products are optimal monitors of the environmental quality; experimental beehives were placed in strategic places of Gran Sasso-Monti della Laga Park. Pollen and honey, produced in this protected area, were analyzed in order to demonstrate their good quality respect to those commercials. Physico-chemical parameters (water content, hydroxymethylfurfural), total flavonoid and phenolic contents and residue analysis (heavy metals, pesticides, tetracycline, sulfathiazole) were carried and evidenced their high quality. Moreover, melissopalynological analysis allowed us to establish a floristic census within the different places of the park. Data show that bee products are good quality, contain high levels of phenolics and flavonoids and show absence of pesticides and low concentration level of heavy metals and antibiotics. Due to this the human impact, even in protected areas, cannot be neglected; similarly environmental contamination by wild livestock was seen in different monitored sites.

KEYWORDS

Honey; Nutraceutical Content; Environmental Monitoring; Melissopalynology; Residue Contamination

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