

Antioxidant and antimicrobial activity of unifloral honeys of plants native to Chile

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Abstract

Chile has a great diversity of endemic and native species which gives floral origin to honey. Due the diversity of unifloral and multifloral honey previously identified it would be necessary to have information about the antioxidant content and biological activity. The objective of this study was to determine total phenols, antioxidant activity (DPPH and FRAP methods) and biological activity of unifloral honeys of native plants from Chile. For this purpose 59 beehoneys of different geographical origin were analyzed by melisopallinological method to determine the pollen present. Antimicrobial activity was tested against *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Streptococcus pyogenes* determining minimal bactericidal concentration (MBC). Results indicate that Chilean native honeys showed significant differences in their antioxidant as well as biological activity, which depends on the botanical and geographical origin, and it can be associated with polyphenol content..

Keywords

Antioxidant, Biological activity, Honey, Chile.