

Determination of Chemical Composition of Turkish Propolis

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The aim of the present work is to study the chemical composition of Turkish propolis. Propolis samples were collected from different regions of Turkey (Bursa, Erzurum-Askale, Gumushane-Sogutagil and Trabzon-Caglayan) in 1999. Ethanol extracts of propolis (EEP) were prepared for chemical analysis, using gas chromatograph coupled with mass spectrometry (GC-MS). Our findings show that propolis samples from Trabzon and Gumushane region have a similar chemical composition. In both samples aromatic acids, aliphatic acids and their esters, and also ketone derivatives are the main compound groups. The chemical composition of the single sample that was collected from Erzurum region shows a very different pattern than the other two samples. In this propolis, the main compounds are aromatic acid esters and alcohols. However, it contains a high amount of amino acids compared to the other samples. The other samples collected from three different region of Bursa City are rich with flavavones, aromatic acids and their esters, terpenoids, flavones and ketones.