

عنوان مقاله:

Analysis of heavy metals in honey from west Azerbaijan province in Iran

محل انتشار:

سومین کنفرانس بین المللی پژوهش های کاربردی در علوم و مهندسی (سال: 1397)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Honey consumption exacerbates the properties of antibacterial drugs, enhances the function of antibodies, and resists harmful microbial activity. One of the most important applications of honey in traditional medicine is immediate energy. Honey reduces constipation, bloating, and gastric gas. Honey reduces constipation, bloating, and gastric gas. The purpose of this study is to determine the amount of heavy metals in honey to know how do these heavy metals affect human health. In total thirty samples were collected from West Azerbaijan province. One gram of honey samples from each region were mixed with magnesium acetate (1 mg/mL). After drying at 100 °C for 90 min, the samples were ashed at 600 °C. The ash was extracted with nitric acid (HNO_3) 2N and the contents of iron (Fe), Manganese (Mn), Lead (Pb) and Zinc (Zn) were determined directly in the ash solution using atomic absorption spectroscopy. Data was analyzed statistically by one way analysis of variance (ANOVA). According to the statistical results, there was no significant difference between the zinc, zn, Fe (Fe) and manganese (mn) and pb (pb) in the honey samples collected from the studied areas. And the honey of this region is in terms of heavy metals in a standard and healthy food value. And only in 13 samples (zn) above the standard level due to the presence of zinc mines in the area collected by the honey. Metals are released into the environment through their use in industrial processes and enter the food chain from uptake by plants from contaminated soil or water. Metals concentration in various places depends on many variables, leading to their different concentrations in honey. Some control measures like the quality control of food products, monitoring the soil in agricultural regions and limiting the use of fertilizers are recommended.

کلمات کلیدی:

honey, heavy metals, atomic absorption spectrometry, west Azerbaijan

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