DETERMINATION OF THE CONCENTRATION OF ESSENTIAL MINERALS (Ca, Fe, K, Mg, Na, Zn) IN HONEY SAMPLES FROM NEGROS OCCIDENTAL

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ABSTRACT

Honey is a natural, sweet and highly nutritional substance produced by bees through a series of nectar collection and chemical processes. Due to the popularity of the product, certain regions in the Philippines has been producing honey and recently, different apiaries from Negros Occidental has been producing its own share of popular product in the market. The products are well received by the consumers, but the problem is the lack of characterization which gives the product doubtful and unconfirmed nutritional value. This study focuses on the quantification of essential minerals (Ca, Fe, K, Mg, Na, Zn) present in local honey samples from Negros Occidental. Eight honey samples were obtained from the different apiaries including an external sample from Mindoro. Samples were acid digested using HNO_3/H_2O_2 solution at 130 °C. The concentration of each minerals in the honey samples were analyzed using AAS. The data reported high concentration (5.71 to 93.20 ppm) of K on most of the samples. The second most abundant mineral in the local honey is Ca ranging from 13.67 to 45.88 ppm. The Mg concentration ranges from 1.19 to 4.09 ppm while Na is in between 0.82 to 3.14 ppm. The mineral Zn and Fe contained the lowest concentration in most of the samples with Zn at 0.46 to 0.86 ppm and Fe at 0.04 to 0.30 ppm.

Keywords: Honey, Essential mineral, Atomic Absorption Spectroscopy