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Comparative Analysis of Some Mineral Profile of Honey Marketed and Consumed in Some of the States in Northern Part of Nigeria

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Abstract : Honey and honey trade is an important economic activity for many tropical rural and urban areas worldwide. In West Africa and other part of the world, honey and honey products holds high socio–cultural, religious, medicinal, and traditional values. Therefore, to maximize benefits or to enhance profit, a variety of components are added to the raw, fresh and unprocessed honey, introducing the possibility of heavy metals contaminants. Therefore the honey sold in various places, markets and shops in some states in Northern Nigeria (Benue, Nassarawa and Taraba) including Abuja FCT, in Nigeria was analyzed to determine the level of heavy metals (Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, and Zn). All the honey samples contain heavy metals. The results ranged from 0.028–0.070, 0.023–0.058, 0.042–0.092, 4.231–8.589, 8.115–14.892, 0.078–0.922, 0.044–0.092, 0.041–0.087 and 18.234–28.654 µg/L for Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, and Zn respectively. The mean concentration (µg/L) of the heavy metals Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, and Zn of the regularly marketed honey is significantly higher than the mean concentration observed in raw, fresh and unprocessed honey. However, continued consumption of honey with high heavy metal content might lead to exposure to chronic heavy metal poisoning.

Keywords : honey, health, mineral profile adulteration, contamination
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