

Effect of Mineral Supplement on Plasma Minerals Concentration of Camels (*Camelus dromedarius*) in Kenya

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Abstract

A study was conducted in Ngurunit and Kargi locations of Marsabit district, Kenya to determine the effect of mineral supplementation on plasma minerals concentration of camels. Two mineral supplements were formulated; one comprising of locally collected, ground bones mixed with locally available natural salt and the other consisted of commercial ingredients. Fifty-nine camels in early lactation were recruited in Kargi and 56 in Ngurunit. Of these camels, 22 were randomly assigned commercial supplement in each site while 12 were put on local supplement in Kargi and 11 in Ngurunit. There were 25 control camels in Kargi and 23 in Ngurunit. Each dam was fed 200 g of supplement daily for 190 days, with blood samples being taken once a month for minerals assay. While the concentration of cobalt and copper was relatively stable, potassium, magnesium and iron exhibited a slight increase. Trends for calcium, sodium, zinc and phosphorus were inconsistent. These results suggested interactions, and that plasma minerals concentration is not a good indicator of dietary mineral content.