

Evaluation of some minerals in buffaloes

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The present study was carried out for the evaluation of copper, zinc and iron in buffaloes from different regions in Basra province. Serum samples were taken from (255)buffaloes and (20)soil samples from pastures as well as (20)samples of green forage grazed by the animals.

Results divided buffaloes into three groups, the first one was healthy **38(14.9%)** of total buffaloes, second **17(6.6%)** those were in subclinical affection and the third group **200(78,4%)** were clinically affected and revealed deficient values in comparison with other groups.

Values of copper, zinc and iron were(**70.3µg/dl±0.867, 154µg/dl±4.459,320µg/dl±2.844**), respectively for healthy control buffaloes, while the values of subclinical group were(**59.7µg/dl ±0.384, 94.7µg/dl±1.943 and 291.8µg/dl±4.214**)respectively, and those of deficient group were(**44.6µg/dl±0.442, 78.4µg/dl±1.069 and 229.1 µg/dl ±4.098**), respectively.

The soil levels of copper, zinc and iron were(**0.25µg/g±0.039, 0.72µg/g±0.032 and 5.9µg/g±0.301**) respectively, and in forage (**2.3µg/g±0.269, 23.8µg/g±0.486 and 25.5µg/g±0.641**), respectively. The main clinical signs of deficient group were; Alopecia, depigmentation, emaciation, parakeratosis and pale mucous membranes.

In conclusion, the study exhibited values of minerals in buffaloes those were higher in healthy buffaloes than those of subclinical and deficient groups. Soil of Basra, was deficient in copper and zinc but normal in iron,

while forages were deficient in those minerals.