

Effect of Season on Some Physio-chemical Parameters of Camels (*Camelus dromedaries*) Raised under Semi-arid Conditions

Mutassim M. Abdelrahman

King Saud University, College of food and Agriculture Sciences, Department of Animal Production, P.O.Box 2460, Riyadh 11451- Saudi Arabia. E-mail: amutassim@ksu.edu.sa.

ABSTRACT

A study was conducted to investigate the effect of summer and spring season on the calcium (Ca), phosphorus (P), magnesium (Mg) and iodine (T3 and T4 hormones) status of camels that raised in an semi-arid area of Jordan. Blood serum were separated and analyzed for Ca, P, T3 and T4 using commercial kits by spectrophotometer. Results showed a significantly ($P<0.05$) higher Ca, T3 and T4 levels during spring season. There was no significant change in P concentration in blood serum as a result of change in season. Furthermore, T3 and T4 levels of the camels were significantly ($P<0.05$) lower during summer season when compared with the levels during spring season. On the other hand, serum Ca and P levels during the summer and spring are below the normal levels reported in previous studies.

In conclusion, climatic changes by season cause significant changes in some mineral concentration and thyroid hormones of camels from semi-arid areas. Therefore, further research is needed to develop a supplementation programs during different seasons to avoid metabolic and nutritional disorder in dromedary camels raise under semi-arid areas.

Keywords: Camels, Macro Minerals, Thyroid hormones, Semi-arid region and Season.