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Intra-Erythrocytic Trace Elements Profile of EMU (Dromaius novaehollandiae) Le Souef 1907

Authors : Adebayo Adewumi

Abstract : Emu Dromaius novaehollandiae the second largest bird in the world started its domestication in the United States in the early 1980's and the present trend in the production of emu in the U.S can be compared with cattle industry. As the population of many wildlife species in Nigeria declined due to unsustainable harvest of bush meat, animals like snails, antelopes,Ostrich, Emu and rodents have been domesticated. Although this improved livestock production in Nigeria, the basic physiological parameters of these mini- livestock are not known. Especially the intra-erythrocyte trace elements of domesticated emu, For this study, emu blood was obtained from Ajanla farms, Ibadan, Oyo State, Nigeria. There, 16 emus at age of 20 months were bled through jugular vein in a semi-intensive system for a period of 12 months. The intra-erythrocyte trace elements Cu, Zn, and Mg in healthy Emu were measured. The influences of sex and age on these parameters were investigated. No age or sex differences were observed in intra-erythrocytic Cu levels. Intra-erythrocytic Zn and Mg levels were significantly higher ($P<0.05$) in young Emu than in adults while males used significantly ($P<0.05$) higher intra erythrocytic Mg than females. intra-erythrocyte trace elements Cu, Zn and Mg is a good pointer to haemoglobin concentration which determines the state of wellness of an animal. The information from this work has provided a baseline data for further understanding of erythrocyte biochemistry of Emu in Nigeria.

Keywords : intra erythrocyte, trace elements, Emu, biochemistry
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