



Modulation of serum trace mineral profiles in post-partum suboestrous surti buffaloes with $\text{PGF}_2\alpha$ alone and $\text{PGF}_2\alpha$ along with vitamin A, D_3 , E and toldimphos sodium preparation therapy at day 55

■ A.S. REDE, C.T. KHASATIYA¹, D.K. SONI¹, S.S. CHAUDHARY² AND S. P. KATKAR¹

Members of the Research Forum

Associate Author :

¹Department of Veterinary Gynaecology and Obstetrics, Navsari Agricultural University, Navsari Campus, NAVSARI (GUJARAT) INDIA

²Department of Physiology and Biochemistry, Navsari Agricultural University, Navsari Campus, NAVSARI (GUJARAT) INDIA

AUTHOR FOR CORRESPONDENCE :

A.S. REDE

Department of Veterinary Gynaecology and Obstetrics, Navsari Agricultural University, Navsari Campus, NAVSARI (GUJARAT) INDIA

Abstract : The serum profile of trace elements (Cu, Co, Zn, Fe and Mn) studied from 55 day to 120 day postpartum in 24 suboestrous surti buffaloes with $\text{PGF}_2\alpha$ alone (T_1), Vitamin A, D_3 , E (T_2) and toldimphos sodium preparation and $\text{PGF}_2\alpha$ along with vitamin A, D_3 , E and toldimphos sodium preparation treatment (T_3) and control (T_4) group revealed that the levels of most elements varied non-significantly between treatments T_1 , T_2 , T_3 and control groups and even within the group between different time intervals post-treatment. The overall mean serum copper, cobalt, zinc, iron and manganese values in T_1 , T_2 , T_3 and control groups at 0 hr, 24 hr, 48 hr and 72 hr post-treatment were 1.56 ± 0.014 , 1.49 ± 0.012 , 1.49 ± 0.017 and 1.48 ± 0.017 ppm; 0.61 ± 0.016 , 0.58 ± 0.018 , 0.60 ± 0.019 and 0.62 ± 0.016 ppm; 1.57 ± 0.061 , 1.66 ± 0.062 , 1.78 ± 0.063 and 1.60 ± 0.044 ppm; 3.48 ± 0.04 , 3.41 ± 0.07 , 3.31 ± 0.05 and 3.33 ± 0.08 ppm as well as 0.146 ± 0.007 , 0.155 ± 0.022 , 0.139 ± 0.007 and 0.153 ± 0.008 ppm, respectively. In the study, we could not find differences in serum trace minerals levels between treated and control groups at different time intervals. Moreover, micronutrients can not be synthesized in the body. Hence, it is concluded that trace elements should be daily supplied in the field and in organized farms as mineral mixture to suffice the requirement of the trace elements.

Key words : Hormone therapy, Trace- minerals profile, Suboestrous, Surti buffaloes

How to cite this paper : Rede, A.S., Khasatiya, C.T., Soni, D.K., Chaudhary, S.S. and Katkar, S.P. (2016). Modulation of serum trace mineral profiles in post-partum suboestrous surti buffaloes with $\text{PGF}_2\alpha$ alone and $\text{PGF}_2\alpha$ along with vitamin A, D_3 , E and toldimphos sodium preparation therapy at day 55. *Vet. Sci. Res. J.*, 7(1) : 9-15.

Paper History : Received : 15.12.2015; Revised : 17.02.2016; Accepted : 07.03.2016