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Minerals and electrolytes profile in different physiological stages of Gir cattle and Jaffarabadi buffaloes

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Abstract : The study was carried out in Gir cattle and Jaffarabadi buffaloes from different age groups that are from birth to mature animal of both sexes of various physiological stages were used for the study which were reared and maintained at Cattle Breeding Farm, Junagadh Agricultural University, Junagadh, Gujarat and various parameters was estimated in Department of Physiology and Biochemistry. A total of 8 ml of blood was collected aseptically through the jugular vein from the animals and were centrifuged to separate clear plasma. Plasma aliquots were stored in different vials at -20 °C for the estimation of various mineral and electrolyte parameters. The levels observed and the detailed comparison of trace minerals (Copper, Iron, Zinc, Manganese and Chromium) and electrolyte parameters (Bicarbonate, Chloride and Osmolality) of both the sexes between Gir cattle and Jaffarabadi buffaloes recorded in this study may serve as baseline data and reference point for further studies in these species and will help in planning for the improvement of reproductive and productive performance of these animals.

Key words : Plasma minerals, Electrolytes, Osmolality, Gir, Jaffrabadi

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