PHYSICAL AND CHEMICAL CHARACTERISTICS OF CAMEL COLOSTRUM

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Summary

Colostrum of ten Najdi camel females (Majaheem breed) at their first season of lactation, was studied up to the tenth day post-partum. Daily samples were tested for fat, protein, lactose, ash, total solids (TS), chlorides, titratable acidity (TA), apparent viscosity, freezing point, pH and specific gravity (Sp.gr.) values as well as clot on boiling. The respective mean values (± sd) at parturition were 0.20 ± 1%, 13.00 ± 1.03%, 2.68 ± .19%, .994 ± .036%, 20.49 ± 1.45%, .243 ± .026%, .248 ± .033%, 7.42 ± 2.88 mPa.s, -.6197 ± .0069 °C, 6.570 ± 0.66, and 1.0637 ± .0023. At the tenth day, the respective mean values (± sd) were 3.84 ± .68%, 4.02 ± .23%, 5.51 ± .43%, .769 ± .039%, 14.717 ± 1.639%, .170 ± .041%, .160 ± .036%, 2.33 ± .38 mPa.s, -.5928 ± .0144 °C, 6.630 ± .212, and 1.0348 ± .0029. Clot on boiling test gave a high positive result at the first day, after which, clot intensity steadily decreased till no more clot was observed after 48 hours. A tenfold increase was shown by fat content during the first 24 hours. A sharp decrease was shown by each of the protein, TS, chloride, Sp.gr. and viscosity values during the first 24 hours. Lactose and the freezing point value increased significantly during 48 hours. In contrast, ash and TA decreased significantly during 48 and 36 hours respectively.