

Serum Progesterone Profile in Sudanese Dromedary She Camels Bred Under Intensive Systemization

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ABSTRACT

This study was conducted at Tumbool Camel Research Center (TCRC) that embeds on the middle western edges of the Butana area (east/ central Sudan) where, sizable Arabic herd camel ecotype Darfur (western Sudan) was kept under closed moderate intensive managemental system. Monthly serum samples were collected from 8 mature female camels and three of their progeny heifers at two-year age and serum progesterone (P4) concentrations were measured. After successful mating of the mature dams P4 increased and found ranging between 7.4 to 13.8 ng/ ml. It remained elevated with pregnancy at a monthly mean of 10.85 ± 7.12 ng/ml recording peak concentration at the 9th month of gestation (37.66 ng/ ml), and then declined to baseline concentration at parturition. She camels carried male feti were found to had insignificant lower ($P > 0.05$) progesterone levels (10.70 ± 5.73 ng/ml) than those carrying female feti (11.41 ± 8.53 ng/ml). She-camels carrying male feti found to had insignificant lower ($P > 0.05$) progesterone levels (10.70 ± 5.73 ng/ml) than those carrying female feti (11.41 ± 8.53 ng/ml). Contrarily dams carrying male and female feti respectively recorded gestation lengths of 386.67 ± 2.67 and 382.5 ± 2.63 days ($P > 0.05$) respectively. Sexual activity of the camel heifers was observed to begin at 30 month old and P4 concentrations started to increase to a measurable level (1.0 -5.0 ng/ml) at 30-32 months old with detectable oestrus signs.

Key words: Progesterone, Pregnancy, Puberty, Intensive management system, Dromedary.