

Effect of Improving Management System on Camels Calving Interval in Western Sudan

Bakheit,^{*1} S. A., Faye,² B., Salih¹ H. A., Idris,³ A. O., Hassan,¹ S. A.

¹Dept. of Animal Production, Faculty of Natural Resources and Environmental studies,
University of Kordofan, P.O.Box 160 Elobeid, SUDAN.

²Dept. of Environmental and Society, CIRAD, Campus de Baillarguet, 34398 Montpellier,
FRANCE.

³Dep of Animal Production and Range, Peace University, Sudan.

*Corresponding Author: Email: sallam.camelin@yahoo.com

ABSTRACT

Eighteen (18) lactating she-camels and two mature male for mating were used to determine the effect of Farming System on camel calving interval, The camels were maintained under semi-intensive (N = 9) and Traditional management system (N = 9) in University of Kordofan Camel Research Farm at North Kordofan State, western Sudan. The experimental females in each group kept together with the bull during 18 months. Blood samples were collected from jugular vein since 4-months post-partum and continue 14 successive months at monthly interval. The serum samples were separated and stored at -20°C and were analysed for progesterone concentration using progesterone specific radio immuno assay (RIA) kits. The results indicated that under semi-intensive system 77.8% of females had been pregnant in 5th - 8th month post-partum and the calving interval varying between 17 to 20 months. Under traditional system and during the experimental period 44.5% of females were pregnant in the 11th - 16th month and the calving interval varying between 23 to 28 months. The ratios of pregnant vs non-pregnant during experimental period in semi-intensive and traditional were 88.9% vs 11.1% and 44.5% vs 55.5%, respectively. Beside the behavioural signs progesterone level consider a good indicator for pregnancy in camels. In pregnant females Progesterone concentration increased significantly (P<0.05) during early months. The range of Progesterone concentration varied between 1.10 - 5.76 ng/ml and 0.67 - 2.53 ng/ml in semi-intensive and traditional system, respectively. Our results allow quantifying this impact. With a supplemented diet including 2 Kg of concentrates and 5 kg of roughages per day, the fertility rate will be improved of 67%. It would be possible to expect more than two fold young camels in a half and year by supplemented 5 kg of concentrates. We conclude that under semi-intensive management dietary supplement during post-partum and early lactation period improves reproductive parameters for instance shortened calving interval in camel.

Keywords: Camel, improving Management, Supplementary feeding, calving interval, Progesterone, Western Sudan.