

## **MANAGEMENT PRACTICES FOR AUGMENTING RUT IN MALE *Camelus dromedarius***

Sumant Vyas<sup>1</sup>, P. K. Pareek, G. N. Purohit and M. S. Sahani<sup>2</sup>  
Department of Animal Reproduction, Gynaecology and Obstetrics  
C. V. A. S., R. A. U., Bikaner - 334 001

### **Abstract**

Short breeding season is important factor responsible for the low reproductive performance of dromedary camel. In the present experiment effect of twice a day parading of male camels in front of herd of female camels in augmenting the “rut” in male camels. Four adult male camels belonging to herd of National Research Centre on Camel, Bikaner were used for the present experiment during the month of october. At the end of study it was revealed that behaviour signs of “rut” was expressed by all four male camels and the intromission and complete act of copulation could be performed only by two (50%) male camels.

Key words: *Camelus dromedarius*, male, rut

### **Introduction**

The one humped camel (*Camelus dromedarius*) has the capacity of being a

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  2. Director, N. R. C. on Camel, Bikaner – 334 001.

better provider of food in the desert areas of the world than the cow which can be severely affected by heat and scarcity of feed and water. The dromedary camel (*Camelus dromedarius*) is used mainly for transport (draft) besides its use for milk, meat, hair and hide. Tibary and Anouassi (1997) estimated the population of dromedaries to be 20 million. One of the most important factors affecting productivity, other than nutrition and disease is the low reproductive performance of the camel. Low reproductive performance has remained a major obstacle to the growth of populations of dromedaries (Wilson, 1991). High fertility levels in the camel are essential, not only for profitable production, but also to provide opportunities for selection and genetic improvements.

Aboul-Ela (1991) reported that factors responsible for the poor reproductive performance of dromedary camels are limited breeding season, delayed puberty, and lengthy gestation period. The breeding season of camel in India extends from December to March i.e. the period of short day length (Matharu, 1966). Similar short day breeding seasons have also been reported in Pakistan (Yasin and Wahid, 1957) and Sudan (Musa and Abusineina, 1978a). Efforts have been made to breed camels during the non-breeding

season using hormonal therapy with a moderate success (Agarwal *et al.*, 1997). However, as stated by Musa *et al.*, (1993), no organized attempts to manipulate the onset of the breeding season or to extend it have been reported.

In the present experiment the improved management practices were used to augment the "rut" in the male dromedary camels.

### **Materials and Methods**

Four adult male camels (J 315, B 528, B 530 and J 56) belonging to the herd of National Research Centre on Camel, Bikaner were used for the present experiment. The camels were maintained under intensive management condition and were stall-fed. They were provided a good quality moth chara @ 12 kg/ day. They were provided water twice a day. The experiment was conducted during month of October.

They were paraded for one hour in the early morning at 5.30 A.M to 6.30 A.M and in evening 6.00 - 7.00 PM in front of the female camels. These management practices continued for a month. And they were observed for any change in their reproductive behaviour.

## **Results and Discussion**

After 10 days of the experiment, all four camels expressed grunting and gurgling sound, when brought near the camel barn. By the end of experiment i.e. 30 days, mild to profuse secretion of salivary gland resulting into froth formation was present in all male camels. The black, odoriferous, sticky, viscous secretion from the Poll glands was present in 75 % of the male camels (Table 1). All male camels expressed soft palate ejection or “Gulla” in local language. Typical standing posture with straddling hind limbs was shown in 75 % of male camels. Frequent micturition and up and down movement of tail resulting into splashing of urine was not shown by one (25%) male camel. Only three (75 %) of male camels, when allowed could mount over the she camels. However only two (50 %) male camels (J 315 and B 528) could perform intromission and complete act of copulation.

Therefore it was revealed in the present experiment that though behavioural signs of “rut” was expressed by all four male camels, the intromission and complete act of copulation could be performed only by two (50 %) male camels.

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Table 1: Reproductive behaviour in male camels

S. No.	Reproductive behavioural signs	J 315	B 528	B 530	J 56
1	Grunting & gurgling sound	Y	Y	Y	Y
2	Secretion of salivary gland (froth)	Y	Y	Y	Y
3	Secretion of poll gland	Y	Y	N	Y
4	Ejection of soft palate	Y	Y	Y	Y
5	Hind limbs apart, standing posture	Y	Y	N	Y
6	Tail- up & down movement	Y	Y	N	Y
7	Act of micturition	Y	Y	N	Y
8	Mounting	Y	Y	N	Y
9	Copulation	Y	Y	N	N

