

GESTATIONAL OESTRUS IN GOATS

C. Ibraheem Kutty* and Stephen Mathew**

Kerala Agricultural University Goat Farm

Faculty of Veterinary and Animal Sciences, Mannuthy, Thrissur.

Cessation of oestrous cycle after mating is generally considered as an indication of pregnancy (Roberts, 1971; Mc Donald and Pineda, 1989) but in goats there is possibility of oestrus among pregnant and anoestrus among nonpregnant due to various reasons (Morrow, 1980; and Cupps, 1991). Oestrus among pregnant does is likely to be greater in a stock that is exposed to functional males. There are reports of incidence of gestational oestrus (G.E.) in cattle (Erb and Morrison, 1958; Sharma *et al.*, 1968 and Kaikini and Fasihuddin, 1984) and in sheep (Williams *et al.*, 1956). A study was conducted on incidence and pattern of G.E. in goats which will be of use in the reproductive management of the species.

Materials and Methods

Breeding data of the goats belonging to Kerala Agricultural University Goat Farm, Mannuthy for the period from April 1 to September 30th of 1994 was used for the study. The farm was under a semi-intensive management and the practice was to artificially breed all the does detected in oestrus by a vasectomised teaser. Breeding record was properly maintained, and G.E. was found out by comparing the dates of oestrus with date of kidding taking the gestation period as 142-155 days reported for the animals of the farm (Sudarsanan and Raja, 1973 and Krishnakumar, 1992).

Results and Discussion

Out of the 168 animals inseminated during the period (Average 2.15 AI per animal) 88 (52.3%) became pregnant as evidenced by kidding. Among these, 30 (34%) animals showed G.E. which included one, two and three incidences in 18 (60%), 9 (30%) and 3 (10%) animals respectively. William *et al.* (1956) have reported incidence of G.E. in 22% of Western ewes and in 62% Rambouillet ewes. Duration of aberrant estrus was 3 days in 2 (6.66%) animals, 2 days in 8 (26.66%) and only one day in 20 (66.66%) animals. Interval between two oestrus during the same pregnancy was found to be 4-69 days. This interval in sheep was 3-40 days (Williams *et al.*, 1956). Out of the 44 cases of gestational oestrus 16 (36.36%), 7 (15.9%), 8 (18.18%), 9 (20.45%) and 4 (9.09%) incidences were in first, second, third, fourth and fifth month of gestation respectively. In cattle 55% of GE was reported to occur during the first month of pregnancy (Sharma, *et al.*, 1968). Incidence was more in pleuriparous does than in doelings. Of the 30 animals which showed GE, only 5 (16.66%) were doelings and the rest 25 (83.34%) were does, similar to the findings reported in cattle (Erb and Morrison, 1958; Sharma *et al.*, 1968).

* P.G. Scholar, Department of Animal Reproduction

** Associate Professor, Centre for Advanced Studies in Animal Breeding and Genetics.

The present study indicates that all the animals which show signs of heat after a recorded history of service cannot be considered nonpregnant. Since the non-return animals included post service anoestrus cases also, the non return rate cannot be used as a reliable indication of pregnancy in goats.

Summary

Incidence of GE was studied among 168 nanny goats belonging to Kerala Agricultural University Goat Farm by comparing the dates of inseminations during a period of 6 months with date of kidding. Of the 88 animals which became pregnant, 30 (34%) animals showed GE, 5 (16.66%) doelings and 25 (83.34%) does). While 18 (60%) animals had only one incidence, 9 (30%) and 3 (10%) animals showed two and three incidences respectively during the same gestation. Duration of GE was one day in 20 (66.66%) animals while 2 and 3 days in 8 (26.66%) and 2 (6.66%) animals respectively. According to the stage of gestation 16 (36.36%), 7 (15.9%), 8 (18.18%), 9 (20.45%) and 4 (9.09%) animals showed GE during first, second, third, fourth and fifth months of gestation respectively. It is concluded that all the animals returning to service should not be considered non pregnant.

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