REPRODUCTIVE PERFORMANCE OF TEDDY GOATS UNDER LOCAL CONDITIONS

M.S. Azhar, M.K. Ahmad, M. Tahir & M. Riaz
Livestock Production Research Institute, Bahadurnagar, Okara
University of Agriculture, Faisalabad

The data on reproductive performance of 71 Teddy goats maintained at the Livestock Production Research Institute, Bahadurnagar, Okara (Pakistan) accumulated over a period from 1983-88 were used for this study. It was observed that the incidence of oestrus and the resulting kidding are spread throughout the year. The maximum oestrus i.e. 15.27 and minimum 4.27% was exhibited during the month of January and June, respectively. The maximum fertility rate or kidding i.e. 14.56% was recorded during November and minimum (3.64%) during August. The average gestation period, kidding interval, postpartum oestrus interval and inter-services period were estimated as 149.23 ± 0.957, 274.05 ± 8.91, 66.96 ± 5.096 and 120.70 ± 9.095 days, respectively. The mean birth weight of kids was found as 1.55 ± 0.265 and 1.49 ± 0.240 kg for males and females, respectively.

INTRODUCTION

The role of various reproductive traits on the overall performance of livestock is well recognised. Productive and reproductive traits of goats under different geographical conditions of the country have been studied by various workers, but information on these aspects of Teddy goats is lacking. Observations on the weight at birth, 6 months age, adult weight alongwith body measurements and other traits of this breed have been reported by Hasnain (1985). This study was designed to estimate the reproductive performance of Teddy goats under local conditions.

MATERIALS AND METHODS

This study was conducted on a flock of 71 Teddy goats maintained at the Livestock Production Research Institute, Bahadurnagar, District Okara. The animals were housed in thatched and Pakka sheds with Kacha floor raised above the ground level. They were reared under semi-intensive system mainly on grazing for 4-8 hours daily supplemented with concrete feed mixture @ 100 g/kid of 1-4 months age, 200 g/animal of 4-6 months age and 250-300 g/animal aged 6 months and above. The grazing was provided in the fields having good quality seasonal green fodders.

Temporary teaser bucks were let loose in the flock every morning and evening for oestrus detection. The females exhibiting signs of oestrus and more than six months old were mated and the pregnant does were kept under special care in a separate pen for about a week before expected date of kidding. The birth weights of the kids were recorded before the kids were allowed to suckle their mothers. The dams alongwith their kids were kept in the goat shed area upto two weeks where they could move around. Adult females alongwith all the female kids of 2-4 months age and male kids more than 4 months old were sent out for grazing separately. Kids below 2 months of age were retained and fed in the goat shed.

In the evening, all the female kids were kept in the shed with their does, but males over 4 months of age were kept separate to avoid uncontrolled breeding. The data on some of the reproductive traits like date of service, date of kidding and postpartum oestrus were recorded over a period of five years i.e. from July, 1983 to June, 1988.

RESULTS AND DISCUSSION

Seasonality of mating and kidding: During the period of this study a total of 1264 matings and 467 kiddings took place. The total number of matings and kiddings alongwith percentage according to various months of the year are presented in Table 1. It was ob-

Table 1. Seasonality of mating and kidding of Teddy goats in irrigated areas

Month	Number of does	Matings (%)	Number	Kiddings (%)
July	54	4.27	18	3.85
August	83	6.57	17	3.64
September	122	9.65	30	6.42
October	119	9.41	59	12.63
November	92	7.28	68	14.56
December	174	13.77	41	8.78
January	193	15.27	36	7.71
February	92	7.28	31	6.64
March	72	5.70	47	10.06
April	92	7.28	32	6.86
May	108	8.54	43	9.21
June	63	4.98	45	9.64

Table 2. Gestation period, postpartum oestrus interval, inter-service period and kidding interval of Teddy goats

Traits	Number of observations	Mean	S.E.	C.V.
Gestation period (days)	193	149.23	0.957	8.906
Postpartum oestrus period (days)	158	66.96	5.096	95.654
Inter-service period (days)	123	120.70	9.095	83.571
Kidding interval (days)	125	274.05	8.910	36.351

served that the goats exhibited oestrus throughout the year. The highest incidence (15.27%) was observed during the month of January and a minimum (4.27%) during the month of July. Kiddings were also spread throughout the year with the highest incidence (14.56%) during the month of November and the lowest (3.64%) during the month of August. The results indicated that the sexual activity was at height during the months of low temperature, i.e. during December and January, while the fertility was maximum during hot months (June and July) which resulted into high percentage of kidding during October and November. Although the data indicated that these goats could be successfully bred thrice in two years. It means that production of kids can be increased one and a half times per year. This will be helpful in decreasing the ever increasing animal protein gap and will enhance the net return of the commercial producers.

Reproductive traits: The mean gestation period, postpartum oestrus interval, inter-service period and kidding interval alongwith standard error and coefficient of variation are given in Table 2. Average gestation period was 149.23 ± 0.957 days which does not significantly differ from that reported for other breeds of goats by various workers (Sahni, 1960 and Singh and Singh, 1974).

Average postpartum oestrus period, inter-service period and kidding interval were 66.96 ± 5.096, 120.70 ± 9.095 and 274.05 ± 8.910 days, respectively. Mishra and Ghei (1989) recorded as 98.70 ± 13.42 and 242.73 ± 12.81 days of inter-service period and kidding interval, respectively, in Sikkim local goats. In this study, longer interval was observed since milk yield of the does was poor and as such suckling was allowed for a longer period (120 days) to provide some nourishment to the kids during the early stages of their growth. The inter-service period and kidding interval were thus prolonged. For better return, these periods should be reduced to increase kid production and net return to the owner.

Birth weight of kids: Overall mean birth weight was recorded as 1.55 ± 0.265 and 1.49 ± 0.240 kg, in male and female kids respectively. Average birth weights of male kids were 1.82 ± 0.324, 1.62 ± 0.219, 1.52 ± 0.268 and 1.25 ± 0.25 kg of single, twin, triplet and quadruplet births, respectively while the corresponding weights for female kids were 1.84 ± 0.274, 1.62 ± 0.226, 1.50 ± 0.220, and 1.0 ± 0.00 kg, respectively.

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