followed immediately by 250 ng/hr GnRH for 48 hours (NOR + GnRh) (n=6), and 4) no treatment (CONTROLS) (n=6). GnRH was administered by subcutaneos miniosmotic pumps. Estrous does were mated by natural service. Laparoscopy was performed 5-7 days after removal of GnRH pumps and daily plasma progesterone determinations were made to document ovulations and function of copora lutea. Pregnancies were determined by real-time ultrasonography 31 days after GnRH pumps were removed. During the 72 hour period after removal of NOR and/or insertion of GnRH pumps, 6/6, 0/6, 6/6 and 3/6 does were in estrus at a mean ($\pm$SD) of 49($\pm$7), 0($\pm$0), 33($\pm$5), and 35($\pm$24) hours in groups NOR, GnRH, NOR + GnRH, and CONTROLS, respectively. Five/6, 0/6, 3/6, and 0/6 does were pregnant at 31 days from those breedings. Four does in group GnRH and 3 does in group CONTROLS were in estrus during the 2 week period after the 72 hour reference period. Those 4 GnRH does, and 2 of the CONTROL does became pregnant to breedings at those estrous periods. Laparoscopic and progesterone determinations generally correlated well with behavioral data. NOR and NOR + GnRH induced synchronized fertile estrous periods in anestrous dairy goats. Estrus appeared to occur earlier and was better synchronized with NOR + GnRH.
KEY WORDS: Estrous synchronization, norgestomet, GnRH

257 ESTROUS CYCLE AND ANESTROUS PERIOD IN THREE NATIVE GENOTYPES OF GOATS UNDER TWO FEEDING-MANAGEMENT SYSTEMS

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This study was conducted in the Brazilian National Goat Research Center, Northeast Brazil from August 1980 to July 1982 to determine the influence of feeding-management on the monthly occurrence and distribution of estrous activity and length of estrous cycle. Twelve does each of Marota, Moxoto and Undefined Breed Type (SRD) were grazed on native pasture (one animal/1.8 ha/year). Twenty-four does of each genotype were fed in confinement (cottonseed and cornmeal mixture, 16.7% crude protein, and green chopped elephant grass, ad libitum). Both groups received a mixture of equal parts sodium chloride and bone meal, free choice. The occurrence of estrous was obtained by direct observations twice a day, aided by one vasectomized adult buck per 12 does. Of the total, the occurrence of does showing estrus varied from 46.8 to 92.1% per month. From 2655 estrous periods, 97.8% represented estrous cycles, while 2.2% were anestrous periods (>63 days). Of estrous cycles, 16.6, 57.7 and 25.8% were short (<17), normal (17-24) and long (25-63 days), and mean lengths ($\bar{x}\pm$ SEM) were 7.6 $\pm$ 0.13, 21.2 $\pm$ 0.04 and 35.8 $\pm$ 0.37 days, respectively. Mean length of anestrous periods was 90.7 $\pm$ 3.23 days. Feeding-management systems did not influence ($P>0.05$) length of estrous cycles or anestrous periods. Estrous periods observed were 33.1% Marota, 27.5% Moxoto and 39.4% SRD ($P<0.05$).