

in the high body condition group (oestrus: February  $8 \pm 5$  days; ovulation: February  $4 \pm 6$  days) than in low body condition group (oestrus: January  $21 \pm 5$  days; ovulation: January  $20 \pm 5$  days). The ovulation rate was greater ( $p < 0.01$ ) in the high body condition group ( $1.9 \pm 0.1$ ) than in the low body condition group ( $1.6 \pm 0.1$ ). In conclusion, females with a low body condition have a shorter breeding season and a lower ovulation rate than high body conditions does. MA De Santiago-Miramontes was supported by a CONACyT scholarship during her doctoral formation.

#### Abstract P228

##### The Sexual Behaviour of Female Goats Exposed to the Male Effect is Modified by Previous Sexual Experience

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The aim was to determine if sexual experience of female goats modified their sexual behaviour when they are exposed to sexually active bucks. Forty females 16 months-old were used. At weaning one group of sexually experienced goats ( $n = 20$ ) were kept with males on opposite sides of a wire fence and received male courtship but not mating. Another group, sexually naive ( $n = 20$ ) had never seen a male. In April (seasonal anoestrus), both groups were exposed to 2 males in each group. All bucks had been rendered sexually active before the male effect by exposure to 2.5 months of long days from November 1. The sexual behaviour of females was recorded 1 h daily during the first 5 days of exposure to males. Most female sexual behaviours were more numerous in naive than in sexually experienced does ( $p < 0.001$ ). This was the case for number of olfactory investigations to the males (naive: 375; experienced: 243), approaches of the males by females (naive: 496; experienced: 223), escape from the males' approaches (naive: 2252; experienced: 658) and tail wagging (naive: 395; experienced: 235). Naive does also displayed more movements of ears (321) than experienced does (108). However, the number of accepted mounts with intromission did not differ between naive and experienced does (6 vs 9;  $p > 0.05$ ). In conclusion, sexual experience modifies the display of some aspects of sexual behaviour in female goats exposed to sexually active males. JR Luna-Orozco was supported by a CONACyT scholarship during his doctoral training.

#### Abstract P229

##### Influence of Continuous Breeding Goats on Return to Cyclicity in Seasonal Breeding Goats

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The boer goats which originated from the South African Republic are continuous breeding animals when kept in the northern hemisphere and they kid three times in 2 years. In this study, a mixed herd was monitored to determine whether boer goats could induce return to cyclicity in seasonal breeding goats. All goats ( $n = 20$ ) were pluriparous and kidded during January and February. During January a mixed group was formed (10 boer goats kept together with 10 domestic breed goats). At the same time a group of domestic breed goats ( $n = 12$ ), kept in the same manner, 40 km away from the experimental group was

used as controls. Blood samples were collected every 72 h to determine level of progesterone in both herds. Goats were monitored at the same time to observe for signs of oestrus. Progesterone concentrations in sera samples were determined using a RIA method. Data were analysed by ANOVA using Statistica software. We observed visual oestrus in all boer goats and in eight domestic breed goats from the mixed group during March and April. Progesterone concentrations confirmed the presence of functional corpora lutea between two visual cycles in these animals. No visual oestrus or increases in progesterone were observed in the control group of goats. In conclusion, continuous breeding boer goats induced oestrus in 80% ( $n = 8$ ) of seasonal breeding goats when kept in a mixed herd.

#### Abstract P230

##### Timed Artificial Insemination (TAI) in Saanen Goats

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TAI and flunixin-meglumine were tested in 32 nulliparous (NUL) and 33 pluriparous (PLU) Saanen goats. Animals received  $30 \mu\text{g}$  d-cloprostenol (Prolise<sup>®</sup>) subcutaneous and 60 mg MAP intravaginal sponge (Progespon<sup>®</sup>; day 0) for 6 days plus 200 IU eCG i.m. (Novormon<sup>®</sup>; day 5). TAI was performed in a standing position 51–54 h after sponge removal with frozen-thawed 0.25 ml straws ( $100 \times 10^6$  spermatozoa). A Collins speculum was inserted into vagina and the cervix was immobilized with an Allis forceps clipped ventrally (without traction). Animals were treated with 1 ml saline (T1: 18 NUL and 14 PLU) or 50 mg flunixin-meglumine (T2: 15 NUL and 18 PLU). Location of semen deposition (SD) was recorded for T1 and T2 (respectively) as 0 = superficial (two and three animals), 1 = after first cervical ring (1 and 1), 2 = second ring (1 and 1), 3 = third ring (1 and 0) or 5 = intra-uterine (27 and 28). SD5 was not possible in 0 PLU and 10 NUL (T1 = 5 and T2 = 5) goats. Insemination was performed in  $33 \pm 32$  s (4–121 s) and  $32 \pm 31$  s (4–139 s) for T1 and T2, respectively ( $P > 0.05$ ). AI was more time-consuming ( $p < 0.01$ ) in nulliparous ( $44 \pm 37$  s; 4–139 s) than pluriparous ( $21 \pm 19$  s; 4–78 s) goats. Pregnancy rate was superior ( $p < 0.01$ ) for T1 (62.5%; 10 NUL and 10 PLU) than T2 (30.3%; 3 NUL and 7 PLU). Non SD5 inseminations resulted in pregnancy only in T1 NUL goats (1 SD0, 1 SD2 and 1 SD3). Flunixin-meglumine was not indicated during TAI in goats. This AI technique was efficient and can be performed quickly with a good percentage of ewes where intrauterine deposition of semen was achieved in both PLU and NUL goats (*Support: EMBRAPA, FAPEMIG, CNPq and Tecnopec Ltda.*)

#### Abstract P231

##### Ultrasonographic Evaluation of Preovulatory Follicle Dynamics in 2 Local Bulgarian Ewe Breeds Following a Synchronized Oestrus

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Ultrasonography is a useful method to study the ovarian responses of sheep. The aim of this study was to characterize ovarian status in two local Bulgarian ovine breeds at the time of ovulation by real-