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Use of D-Cloprostenol at different intervals of administration for estrous synchronization in cyclic Saanen goats

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This study evaluated the efficiency of two doses of 37.5 µg of d-cloprostenol (Prolise®, Tecnopec, São Paulo, Brazil) latero-vulvar at intervals of 7 (G7; n=19), 10 (G10; n=18) or 11.5 days (G11.5; n=17) for estrus synchronization in cyclic Saanen goats. Blood samples were collected from 23 randomly chosen goats divided into G7 (n = 8); G10 (n = 8) and G11, 5 (n = 7) for subsequent determination of plasma P4. Estrus was monitored after the 1st and 2nd administration of d-cloprostenol, in 23 goats, which had blood samples collected, as well as in 54 goats enrolled in the trial. To determine the beginning and end of estrus, each goat was observed twice daily (09:00 and 16:00h) for about 15 minutes in the presence of a buck. Onset of estrus was considered when females allowed to be mounted by the male. Monitoring continued until the end of estrus. The goats were inseminated from 18 to 24 hours after the onset of second estrus. Parametric variables were analyzed through one-way analysis of variance and compared by tukey test (5% significance). Non parametric variables were analyzed using the chi-square test (SAEG®, Funarbe, Viçosa, Brasil). All goats had P4>1 ng/mL at the time of the 1st and 2nd administration of d-cloprostenol. The percentage of goats that showed estrus after 1st and 2nd administration of cloprostenol was 69.6% (16/23) and 90.7% (49/54), respectively. The percentage of animals in estrus was 94.7% - G7, 88.9% - G10 and 88.2% - G11.5. The interval to estrus and duration of estrus after first (G7 = 53.8 ± 15.4h and 24.5 ± 9.8h; G10 = 54.3 ± 9.3h and 29.2 ± 16.0h; G11.5 = 47.3 ± 5.8h and 23.7 ± 11.8h) and second (G7 = 43.8 ± 10.7h and 27.0 ± 12.1h; G10 = 50.6 ± 13.7h and 22.3 ± 10.4h; G11.5 = 45.5 ± 27.6h and 33.5 ± 19.4h) administration of d-cloprostenol did not differ (P>0.05) between treatments. The conception rate of the G7 [55.6% (10/18)] was greater (P=0.06) than G10 [18.8% (3/16)] and G11.5 [26.7% (4/15)]. It can be concluded that, although the three protocols have been effective in synchronizing estrous in Saanen goats during the breeding season, the protocol with an interval of seven days achieved better conception results.