

INDUCTION OF ESTRUS IN ANGLO-NUBIAN GOATS IN THE TRANSITION
SEASON WITH SHORT-TERM PROGESTAGEN PROTOCOLS WITH OR WITHOUT
ECG ADMINISTRATION

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Synchronized estrus can be induced by different hormonal protocols including more often prostaglandin, progestagens and gonadotrophins. Equine chorionic gonadotrophin is a FSH-like hormone produced by pregnant mares that can evoke antibody formation in goats. Thus if possible, restriction of its use should be considered. The aim of this study was to investigate the possibility to omit the administration of eCG to induce estrus in Anglo-Nubian goats during the transition season. This study was done in February of 2009 in Espírito Santo do Pinhal/SP (22°57'S latitude and 46°58'W longitude), Brazil. The local breeding season extends from March to June. A total of 10 nulliparous and 10 pluriparous Anglo-Nubian goats were equally assigned into two treatments with (T1) or without (T2) 200 IU eCG (Novormon 5000[®], Intervet Schering Plough Animal Health, São Paulo, Brazil) i.m. administration 24h before sponge removal. All goats received (Day 0) intravaginal sponges (60 mg MAP; Progespon[®], Intervet Schering Plough Animal Health) and 50 mg d-cloprostenol (Ciosin[®], Intervet Schering Plough Animal Health) i.m. Estrous behavior and transretal ultrasonography (5MHz transducer; Aloka SSD 500[®], Tokyo, Japan) were performed at 12h interval (06:00 and 18:00 h) until 96h after sponge removal. Statistical analysis was performed using all tests at the 95% confidence interval with a SAEG[®] program (Funarbe, Viçosa, Brazil). Estrous response was 100% (10/10) for T1 and 70% (7/10) for T2 (P>0.05). All animals that were detected in estrus, ovulated and none of the three that did not show estrus ovulated. The interval from sponge removal to estrous onset (h) was 36.0±9.8 (T1) and 34.8±10.5 (T2), whereas, its duration (h) was 27.4±14.5 (T1) and 32.6±12.7 (P>0.05). The interval from sponge removal to ovulation (h) was 67.0±8.0 (T1) and 73.9±6.4 (T2). Also, the interval from estrous onset to ovulation (h) was

25.2±8.85 (T1) and 30.9±6.4 (T2). No difference ($P>0.05$) was observed in the number of ovulations for T1 (1.2±0.4) and T2 (1.4±0.5). The diameter of the ovulatory follicle (mm) was similar ($P>0.05$) for T1 (6.7±0.6) and T2 (6.5±0.6) ($P>0.05$). Further studies should be done in order to consider if the use of eCG is necessary in the transition season for Anglo-Nubian goats.

Keywords: estrous induction, ultrasonography, ovarian follicles, goat.

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