

## **Timed hormonal treatments in induction and synchronization of Saanen goats estrus during nonbreeding season.**

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### **Abstract / Resumo:**

With the aim to evaluate reproductive performance of Saanen goats among different timed hormonal protocols during nonbreeding season, 30 females had the estrus cycles induced and synchronized by insertion of an intravaginal sponge impregnated with 60mg Medroxyprogesterone Acetate. All goats received 200 IU eCG and 37.5 µg PGF<sub>2</sub>α analog 24 hours prior to sponge removal. After 5 days of mating, all animals received 250 IU hCG. Animals were divided in 3 groups: Group 1 (G1) – vaginal sponge remaining for 6 days (n=10); Group 2 (G2) – vaginal sponge remaining for 9 days (n=10) and Group 3 (G3) – vaginal sponge remaining for 12 days (n=10). An ultrasound scanner was used to determine time of ovulation and animals were tested for estrus by the use of a buck. All animals (100%) from G2 and G3 had signs of estrus while one goat (10%) from G1 did not show signs. Estrus length had no difference between groups (G1: 34.66 ± 22.80; G2: 30.00 ± 12.96; G3: 37.20 ± 19.14 hours, P>0.05). Time between sponge removal and beginning of estrus (G1: 20.66 ± 16.73; G2: 20.40 ± 7.59; G3: 19.20 ± 10.51 hours) and time from beginning of estrus until ovulation (G1: 26.40 ± 5.37; G2: 30.00 ± 12.96; G3: 34.28 ± 8.28 hours) also did not differ (P>0.05). G2 had all animals ovulating (100%) while G1 had 8 and G3 had 7 (80% and 70%, respectively). Time between sponge removal and ovulation differ between G1 and G3 (39.00 ± 5.55 and 55.71 ± 12.83, hours respectively, P <0.05), but G2 didn't differ of the others (50.40 ± 13.91 hours). Ovulation rate (G1: 1.50 ± 0.97; G2: 1.50 ± 0.53; G3: 1.00 ± 0.82) as well as ovulatory follicle diameter (G1: 1.00 ± 0.82 X 5.48 ± 0.62mm; G2: 5.68 ± 0.85 X 5.72 ± 1.13mm; G3: 5.77 ± 0.87 X 5.35 ± 0.69mm) had no difference between treatment protocols (P>0.05).