

346. Evaluation rates of ovulation and pregnancy in Toggemburg goats after hormonal treatment with synthetic progesterone 12, 9 and 6 days

Paula Maria Pires do Nascimento^{1*}; Felipe Zandonadi Brandão¹; Priscilla F.V. Pereira¹; Vinícius Ribeiro Pontello²; André Penido Oliveira³; José Henrique Bruski³ and Jeferson Ferreira da Fonseca⁴

¹ Federal Fluminense University, R. Vital Brasil Filho, 64 - CEP: 24.230 – 340, Niterói – RJ, Brasil; ² Pontificia Catolic University of Poços de Caldas, Av. Padre Francis Cletus Cox, 1661 - CEP: 37701-355 – Poços de Caldas – MG, Brasil. ³ Embrapa Dairy Cattle Rearch – R. Eugênio do Nascimento, 610 - CEP: 36038-330 - Juiz de Fora – MG, Brasil; ⁴ Embrapa Goats, Três Lagoas Farm, Estrada Sobral/Groaíras, km 4 - CEP: 62011-970 Sobral – CE, Brasil. * E-mail: paulampn@gmail.com

The aim of the study was to evaluate the rates of ovulation and pregnancy, after the use of controlled internal drug release device impregnated with progesterone (CIDR[®] - Pfizer) 12, 9 and 6 days, in anoestrus season. Animals (N=51) were used, distributed homogeneously into 2 groups (G1 = 30 animals and G2 = 21 animals). Each group had 3 treatments, treatment 1 (T1) remained 12 days with CIDR[®], weight $45.71 \pm 0.64\text{kg}$ and 3.42 ± 0.11 for body condition score; treatment 2 (T2) 9 days with CIDR[®], weight $45,76 \pm 0.98\text{kg}$ and 3.59 ± 0.17 for body condition score and treatment 3 (T3) 6 days with CIDR[®], weight $47.66 \pm 1.66\text{kg}$ and body condition score $3.52 \pm 0,32$. With permanence of CIDR[®] 12, with 9 and 6 days respectively. The goats received dose of 1 ml of prostaglandin subvulvar (Lutalyse[®] - Pfizer) on the insertion of the device in 200 IU of eCG (Novormon[®] - Schering-Plough) 24 hours before the removal of CIDR[®]. In both groups after the removal of the progesterone, was carried out monitoring of the animals by transrectal ultrasonography 8 to 8 hours until the confirmation of ovulation. The method of mating was covered by natural insemination in G1 and artificial insemination with fixed time (AIFT) in G2, 50 hours after the removal of the CIDR[®]. The period that includes the start of estrus to ovulation was in G1 23.3 ± 4.08 hours and 15.47 ± 4.08 hours to G2. The percentage of animals that had ovulation was 100% in G1 and G2, 85% (6 / 7), 71% (5 / 7) and 71% (5 / 7) for T1, T2 and T3, respectively, But there was no significant difference ($p \leq 0.05$) between treatments (Fisher test), however the ovulation between groups differed by Chi-square test. The pregnancies of G1 had 60% (6 / 10), 70% (7 / 10) and 40% (4 / 10) for T1, T2 and T3, respectively in G2, 50% (3 / 3), 80 % (1 / 5) and 60% (3 / 5) for T1, T2 and T3, respectively, with no statistical difference between treatments by Fisher test and between groups (chi-square test). The induction and synchrony of estrus in goats with CIDR[®] in the period of anoestrus season, independent of the time of exposure to P₄ result in good fertility, both in natural and in AIFT.