OESTROUS AND OF THE OVULATION SYNCHRONIZATION, ARTIFICIAL INSEMINATION IN FIXED TIME AND PREGNANCY VALUES IN NELORE MILK COWS

Nascimento, V.A.[2]; Torres, C.A.A.[3]; de Oliveira, M.M.N.F.[4]; Lograd, M.L.[5]; Viana, J.H.M.[6]; da Costa, E.P.[7]; Sousa, K.R.S.[5]; Carneiro, C.[8]; Oliveira, F.A.[9]

[1] Parte da dissertação de Mestrado do primeiro autor, financiada pela CAPES, [2] Doutorando do DZO/UFV, 36571-000, Viçosa–MG, Brasil, [3] Professor do DZO/UFV, 36571-000, Viçosa–MG, Brasil, [4] Professora do DZO/UFVJM, Diamantina-MG, Brasil, [5] Mestranda do DZO/UFV, 36571-000, Viçosa–MG, Brasil, [6] Pesquisador da EMBRAPA-CNPGL, Juiz de Fora-MG, Brasil, [7] Professor do DVT/UFV, 36571-000, Viçosa–MG, Brasil, [8] Estudante de Zootecnia/ UFVJM, Diamantina-MG, Brasil, [9] Estudante de Medicina Veterinária/UFV- 36571-000, Viçosa–MG, Brasil, vinicioaraujo@vicosa.ufv.br

The oestrus detection is the main factor that influences the artificial insemination (AI) on cows. Protocols using progesterone devices (LAMB et al. Journal Animal Science, v.79, p.2253-2259) and of Benzoate of Estradiol (EB), replacing GnRH shows satisfactory pregnancy rates and reduce costs. The eCG injection, associated to PGF2α improves the follicular development (BARUSELLI et al. Theriogenology, v.59, p.214). The aim of this work was to check the efficiency of hormonal protocols with Artificial Insemination at Fixed Time (AITF) in Nelore cows in the postpartum, and to evaluate the effect of body weight (PV) and condition (CC) on fertility rate. The study used 120 milk Nelore cows, distributed at random in three treatments: T1 - insertion of a intravaginal progesterone device (DIB®, Argentina) and injection (im) of 2 mg of EB (RIC BE®, Argentina) at day 0, DIB removal on day 8 and injection, im, of 300 IU of eCG (Novormon®, Argentina) and 0.15 mg of PGF2α (Prolise®, Argentina). The artificial insemination (AI) was performed 48 hours after the DIB removal, simultaneous with 25 mg of Lecirelina injection, im (Gestran Plus®, Argentina); T2 - similar to T1, but administering 1 mg of EB, im, at day 9, in replacement of second dose GnRH, and AI realized 50-56 hours after the DIB removal; T3 - insemination 12 and 18 hours after the oestrus detection, induced by PGF2a. At the insertion of the device, the cows were weight, CC evaluated (one to nine scale) and the ciclicity of the animals were checked by the use of ultra-som exams on the corpus luteum presence. For statistical analysis, SAEG 8.0 to 5% of probability program was used and comparison of means by Duncan test. The qualitative variables were submitted to the Qui-square Test. The conception rate (pregnancy cows/AI ones) on T2 and T3 groups was superior ($P < 0.05$) than those on T1. The pregnancy rate (pregnancy cows/total cows in the treatment) was 53.2% (T1 and T2 = 52.25%, T3 = 55.0%), with the superior rate for T2 ($P < 0.05$). Considering the variables PV, days in the postpartum and CC, no difference was observed among the treatments ($P > 0.05$). The body weight condition did not affect the pregnancy rate of the treatments, which oppose which the MOREIRA et al (Theriogenology, v.53, p.1305-1319) propositions. The pregnancy rates of cyclic cows from treatments 2 and 3 were greater ($P < 0.05$) than T1. The anestrous cows of T1 and T2 showed satisfactory pregnancy rate (50 and 70%, respectively), which corroborate the GEARY et al. (Journal Animal of Science, v.76, p.1523-1527) results. The cows of T2 and T3 showed better pregnancy values than cows of T1 as related to the parity ($P < 0.05$). The use of AIFT protocols showed satisfactory results similar the to one observed by AI with oestrus detection and the anestrous postpartum controlled by ovulation synchronization protocols. * Tecnopec for the collaboration.