

**EFFECT OF eCG AND GnRH ADMINISTRATION ON PREGNANCY  
RATE OF LACTATING NELORE COWS SUBMITTED TO FIXED  
TIME ARTIFICIAL INSEMINATION**

**Silva, R.C.P.<sup>1</sup>; Rodrigues, C.A.<sup>2</sup>; Marques, M.O.<sup>1</sup>; Ayres, H.<sup>3</sup>; Reis, E.L.<sup>3</sup>; Nichi, M.<sup>3</sup>;  
Madureira, E.H.<sup>3</sup>; Baruselli, P.S.<sup>3</sup>**

<sup>1</sup>GERAEMBRYO, Cornélio Procópio-PR, Brazil. <sup>2</sup>Clínica Veterinária SAMVET de São Carlos, São Carlos-SP, Brazil. <sup>3</sup>Departamento de Reprodução Animal, FMVZ-USP, São Paulo-SP, Brazil.  
barusell@usp.br

Aiming to improve pregnancy rates in Fixed Time Artificial Insemination (FTAI) this study was designed to evaluate the effect of eCG and GnRH administration in the treatment with progestagen auricular implant in lactating Nelore cattle. Fifty hundred ninety nine lactating Nelore cows (76,1±51,6 days postpartum) kept under pasture regimen at Brasilândia-MS (Agropecuária HORA) and Araraquara-SP (Agropecuária NSA) were used. The animals were randomly assigned to 4 treatment groups in a 2 by 2 factorial design according body corporal condition. At unknown stage of oestrous cycle (Day 0), all animals received 3 mg Norgestomet and 5 mg Estradiol valerate i.m. with a auricular implant containing 3 mg Norgestomet (Crestar<sup>®</sup>, Intervet). On Day 9, the implant was withdrawal and all animals were submitted to FTAI 54 hours later. The group G-CON (n=152) was not submitted to additional treatment. The group G-GnRH (n=147) received 100 µg GnRH i.m. (Fertagyl<sup>®</sup>, Intervet) at moment of FTAI. The group G-eCG (n=151) received 400 IU eCG i.m. (Folligon<sup>®</sup>, Intervet) at the time of implant removal. The G-eCG+GnRH (n=149) received 400 IU eCG i.m. at the time of implant removal and 100 µg GnRH i.m. at moment of FTAI. The pregnancy diagnosis was performed by ultrasonography 30 days after FTAI. Pregnancy rates were compared by Chi-square test. No interaction was observed between treatments. Pregnancy rates in the groups G-CON, G-GnRH, G-eCG and G-eCG+GnRH were 27.6% (42/152)<sup>c</sup>, 40.1% (59/147)<sup>b</sup>, 47.7% (72/151)<sup>ab</sup> and 55.7% (83/149)<sup>a</sup>, respectively (P<0.05). The main effects indicated higher pregnancy rate (P<0.05) for treatment with eCG [51.8% (155/300)<sup>a</sup> vs. 33.8 (101/299)<sup>b</sup>] and GnRH [48.0 (142/296)<sup>a</sup> vs. 37.6% (114/303)<sup>b</sup>]. The results indicated that the eCG treatment at the time of progestagen auricular implant removal and GnRH treatment at moment of FTAI increased pregnancy rate in lactating Nelore cows FTAI.

*Acknowledgment: Intervet*