Animal Reproduction

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EFFECT OF hCG AT THE TIME OF AI ON THE PREGNANCY RATE OF Bos indicus COWS SUBMITTED TO THE OVULATION SYNCHRONIZATION PROTOCOL

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Resumo

The objective was to evaluate the effect of the administration hCG at the moment of TAI in Bos indicus cows that had not demonstrated estrous during the ovulation synchronization protocol. On a random day of the estrous cycle (D0), Bos indicus lactating cows (n=684) received 2mg of estradiol benzoate (Fertilcare Sincronização, MSD, Brazil) and an intravaginal progesterone device (Fertilcare 1200, MSD, Brazil). On day 8 (D8), the progesterone device was removed and cows received 500µg of sodium cloprostenol (Ciosin®, MSD, São Paulo, Brazil), 1.0 mg of estradiol cypionate (Fertilcare ovulação® - MSD, São Paulo, Brasil) and 300 UI of eCG (Folligon, MSD, Brazil). In addition, the tailhead of was marked with chalk for evaluate estrus expression between D8 and D10. On day 10 (D10) the cows that did not remain marked were considered in estrus and excluded from the experiment. Cows that remained with the marking on the tailhead were considered non-estrus and, simultaneously, were randomly distributed three experimental groups (Control group, GnRH group and hCG group). Control group (n=228) cows did not receive treatment. GnRH group cows received 100 µg of Gonadorelin (Fertagyl, MSD, Brazil; n=227) and hCG group cows received 1000 UI of hCG (Chorulon, MSD, Brazil; n=229). After the administration of treatments, all cows were inseminated. Pregnancy diagnosis were perfomed 30 days after TAI (D40). Cows were considered non-pregnant were kept with clean-up bulls for 42 days in proportion of one bull to five cows. Statistical analysis was performed by SAS. The pregnancy rate was higher in the hCG group compared to the control group [Control – 42.9% (98/228)b, GnRH – 46.7% (105/225)ab, hCG 53.3% (122/229)a; P=0.04]. In addition, there was a tendency (P=0.09) to have a higher pregnancy rate ate the clean-up bulls on cows of the hCG group compared to the control group [Control – 13.9% (18/130)B, GnRH – 17.5% (21/120)AB, hCG 25.2% (27/107)A]. It is concluded that the use of hCG at the time of TAI in Bos indicus cows that did not manifest estrous during the ovulation synchronization protocol increases the pregnancy rate of TAI and clean-up bulls in lactating Bos indicus cows.