



A104 FTAI, FTET and AI

Utilization of DIB 0.5 g® in TAI programs of postpartum Nelore cows

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Keywords: insemination, progesterone device, veal.

The objective of this study was to evaluate the efficiency of new and previously used for 8 days intravaginal devices containing 0.5 g of progesterone (P4; DIB® 0.5 g, Syntex, Argentina), in the conception rate of Nelore cows submitted to time-fixed artificial insemination (TAI) programs. For both, 929 females between 30 and 60 days postpartum were randomly divided into four treatments: new intravaginal device containing 1.0 g of P4 (n=244; New DIB, DIB 1g®, MSD Animal Health); intravaginal device with 1.0 g of P4 previously used for 8 days (n=235; DIB 1X; DIB 1 g®, MSD Animal Health); new intravaginal device containing 0.5 g of P4 (n=238; New DIB0.5; DIB 0.5 g®, Syntex SA.); and intravaginal device with 0.5 g of P4 previously used for 8 days (n=212; DIB0.5 1X; DIB 0.5g®, Syntex SA.). All females were submitted to the same TAI protocol, the only cause of variation was the intravaginal device utilized. On day 0, the P4 device was inserted, associated to 2 mg of estradiol benzoate i.m. (Gonadiol®, MSD Animal Health). After 8 days, the P4 devices were removed and 0.375 mg of Sodic Cloprostenol (Ciosin®, MSD Animal Health), 300 IU of equine chorionic gonadotropin (eCG; Novormon®, MSD Animal Health) and 1 mg of estradiol cypionate (Cipiosyn®, Syntex SA.) were administrated i.m. TAI was done 48 hours after device removal, using semen of sires with historical good fertility in TAI programs and with homogeneous distribution of the inseminators and the semen batches with in replicates and treatments. Pregnancy diagnosis was performed 30 days after TAI by transrectal ultrasonography and data were analyzed by GLIMMIX procedure of SAS. The conception rate of New DIB0.5 group (59.24%^a, 141/238) was similar to those obtained in New DIB group (63.52%^a, 155/244) and DIB 1X group (59.15%^a, 139/235). However, the use of DIB0.5 1X (46.23%^b, 98/212) significantly reduced the TAI conception rate (P=0.001). It was concluded that the utilization of New DIB 0.5 g® promotes satisfactory results in the pregnancy rates at suckled Nelore cows TAI. However, the reuse of the DIB 0.5 g® provides reduced conception rates to TAI.

Acknowledgment: MSD Animal Health and HoRa Agribusiness.