

**Abstracts - 35th Annual Meeting of the Brazilian Embryo Technology Society (SBTE)****FTAI/FTET/AI**

## Effects of pre-TAI protocol with different injectable progesterone (P4i) on pregnancy rate in beef cows

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### Resumo

The aim of the study was to evaluate the efficiency of two different injectable progesterone (P4i) on pre-TAI protocol in beef cows. A total of 490 Nelore multiparous cows with  $38.3 \pm 1.2$  DDP and  $2.76 \pm 0.02$  BCS (1-5 scale) from a commercial farm in Rondonópolis, MT state (Brazil) were used. Ten days before the beginning of the TAI protocol (D-10), cows were randomized according to DDP and BCS into 2 experimental groups: 1) Sincrogest: cows received 150mg i.m of Sincrogest injetável® (Ourofino Saúde Animal, Brazil; n=243) and 2) Progecio: cows received 140mg i.m of Progecio® (Agener União Saúde Animal, Brazil; n=247). On D0 of the TAI protocol, all animals received an intravaginal P4 device (Sincrogest®, Ourofino) and 2 mg of estradiol benzoate (EB; Sincrodiol®, Ourofino). On D8, heifers received 1 mg of estradiol cypionate (EC; SincroCP®, Ourofino), 0.53mg of sodic cloprostenol (PGF; Sincrocio®, Ourofino) and 300 IU of eCG (SincroeCG® Ourofino). At the same time, heifers were painted with chalk on their tailheads, and removal of chalk on D10 was used as an indication of estrus. TAI was performed 48h later (D10) in both groups. Pregnancy diagnosis was evaluated by US (Mindray® DP-2200Vet) after 30 days of insemination. Statistical analyses were performed using Glimmix of SAS 9.4. No difference was observed between groups for P/AI [Sincrogest = 52.7% (128/243); Progecio = 46.2% (114/247); P=0.15]. The P/AI was affected by estrus expression, where cows that demonstrated estrus had greater pregnancy rate [Estrus = 56.7% (140/274); No estrus = 42.0% (102/243); P=0.001]. Additionally, an interaction between treatment and estrus expression was found, in which cows without estrus expression from Progecio group had lower pregnancy rate when compared to others groups [Sincrogest\_Estrus = 54.3% (69/127)A; Sincrogest\_No estrus = 50.9% (59/116)AB; Progecio\_Estrus = 59.2% (71/120)A; Progecio\_No estrus = 33.9% (43/127)C; P=0.02]. In conclusion, the administration of Sincrogest injetável® on pre-synchronization protocol showed satisfactory P/AI, regardless of estrus expression.

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