

**EFFECT OF ESTRADIOL CYPIONATE OR BENZOATE TO INDUCE
OVULATION ON PREGNANCY RATES IN FIXED TIME ARTIFICIALLY
INSEMINATED NELORE COWS**

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The aim of this study was to compare pregnancy rates following the administration of estradiol benzoate (EB) or estradiol cypionate (EC) at two different times after CIDR removal to induce ovulation in a fixed time artificial insemination (FTAI) protocol. Two hundred and fourteen lactating Nelore cows (60-90 days postpartum) kept on pasture at Brasilândia-MS were used. The animals were randomly assigned to four treatment groups in a two by two factorial design according to postpartum period and body condition score (1-5). At unknown stages of estrous cycle (Day 0), all animals received an injection of 2 mg EB i.m. (Estrogin[®], Farmavet) and an intravaginal device containing 1,9 g progesterone (CIDR[®], Pfizer). On Day 8, CIDR were removed and an injection of 25mg Dinoprost i.m. (Lutalyse[®], Pfizer) plus 400 IU eCG i.m. (Novormon[®], Syntex) was administered. Animals were subdivided to receive estradiol benzoate or estradiol cypionate (ECP[®], Pfizer) on Day 8 (at the time of CIDR removal) or Day 9 (24h after CIDR removal). The group EC0 (n=57) received 0.5mg EC on Day 8; the group EC24 (n=52) received 0.5mg EC on Day 9; the group EB0 (n=51) received 1mg EB on Day 8; and the group EB24 (n=54) received 1mg EB on Day 9. FTAI was performed 54h after CIDR removal. Pregnancy diagnosis was done by ultrasonography 30 days after FTAI. Pregnancy rates were compared by Chi-square test. No interaction was observed between the estradiol treatments and the timing of treatment. Pregnancy rates in the groups EC0, EC24, EB0 and EB24 were 45.6% (26/57), 42.3% (22/52), 41.2% (21/51) and 42.6% (23/54), respectively (P>0.05). The main effects indicated the same pregnancy rates (P>0.05) for treatments with EC and EB [44.0% (48/109) vs. 41.9% (44/105)] and for treatment on Day 8 or on Day 9 [43.5% (47/108) vs. 42.5% (45/106)]. Results indicate that treatment with either estradiol benzoate or estradiol cypionate at the time of CIDR removal or 24 hours later, will yield similar pregnancy rate in lactating Nelore cows following FTAI.

Acknowledgment: Pfizer