straws. Three hundred Nelore heifers were separated into 5 groups of 60 animals. For artificial insemination, the straws were thawed at 35°C for 20 sec and the females in each group were inseminated with semen of the same bull, using 30 female for each semen extender treatment. For *in vitro* fertilization, oocytes with homogeneous cytoplasm and compact cumulus, collected from ovaries of slaughtered cows were selected and maturated in groups of 25 in droplets of 100µl TCM 199 medium with FCS, FSH, hCG and estradiol, sodium pyruvate and amicacin, for 24 hours, under mineral oil, in atmosphere of 5% CO_2 and 95% humidity in air, at 38.5ºC. After maturation, the oocytes were placed in droplets with TALP containing BSA, PHE and 10µg/ml of heparin with 1x 10^6 motile spermatozoa/ml. Four straws (two – CE and two – AE) from same bull and ejaculate were thawed and each straw was processed for one spermatozoa separation method for pellet recover: washing medium or Percoll gradient. After 22 - 24 hours, zygotes were stripped from cumulus cells and cultivated in droplets of SOF medium supplemented with 2.5% FCS and 0.5% BSA in 5% CO_2 and 95% humidity in air, at 38.5ºC, for 9 days.
The results were analyzed by Qui-square Test, in contingency table, with significance level of 5%. The pregnancy rates differed between bulls ($P<0.001$) and bulls with more abnormal spermatozoa were better with antioxidant in the extender ($P<0.06$). Blastocysts rates were different ($P<0.05$) for CE (31.74%) and AE (35.00%). Embryo development was higher ($P<0.05$) after in vitro fertilization using Percoll gradient (35.35%) compared to washing medium (31.55%).
Antioxidant in the semen extender improved spermatic viability and increased blastocyst *in vitro* development and pregnancy rates. The use of Percoll gradient for sperm separation increased blastocyst production.

P017

Early induction of ovulation in postpartum anestrous F1 Holstein x Zebu crossbred dairy cows

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Dairy herds in Brazil are mainly composed by crossbred cows (1.100Kg/lactation). Holstein x Zebu (HZ) crossbred cows are well adapted to tropical environments and demonstrate high productive, reproductive efficiency and high profitability in pastures conditions, and has a great importance for Brazilian and other tropical dairy industries. The aim of this study was to evaluate the efficiency of a hormonal protocol for the induction of estrus and ovulation in early postpartum anestrous F1 HZ crossbred dairy cows. The study was done in the Experimental Research Center of EPAMIG (Minas Gerais Agricultural Research Corporation), Felixlandia-MG-Brazil. Fifty-four crossbred lactating dairy cows (7.0 ± 1.6 years old; 499.15 ± 59.27Kg BW; BCS of 3.76 ± 0.19; 18.0±3.5 Kg milk/day; 3,102.57 Kg/lactation) were submitted to ultrasound evaluation and the cows presented completed uterine involution, no uterine luminal fluid, absence of corpus luteum and dominant follicle diameter more than 9mm. Hormonal protocol were used in the early postpartum period (41.37±12.11 days), during the dry (July, n=32) or rainy (January, n=22) seasons. Anoestrous cows received a CIDR (Day 0) containing 1.9 g of progesterone (Eazi-Breed CIDR, Pfizer, Inc., Brazil) and a 1-mg i.m. injection of EB (Estradiol Benzoate, Estrogin, Farmavet, Brazil). On day 8, the CIDR device was removed and cows received a 1-mg i.m. injection of ECP (Estradiol Cypionate, Pfizer, Inc.). Non-parametric variables were compared by Fisher Exact test and the parametric variables were submitted to ANOVA and compared by t-test. Ovulation rate (93.75% and 81.82%), the maximum diameter of follicle at the day (D0) of intravaginal progesterone-releasing insert (1.26±0.21 and 1.33±0.23cm) and area of corpus luteum at day 6 or 7 after ovulation (3.24±1.15 and 3.37±1.09 cm2) did not differ ($p>0.05$) between dry and rainy seasons, respectively. Synchronization rate was higher ($p<0.05$) in cows presenting great (1.32±0.20cm) than small (1.06±0.22cm) dominant follicles at the day of CIDR insert. The protocol was efficient in inducing estrous and ovulation in early postpartum of anestrous F1 HZ crossbred dairy cows, and the diameter of follicle at beginning of the protocol influenced the synchronization rate.

P018

The effect of chloride ammonium, vitamin E and Se supplementation throughout dry period, on the prevention of retained placenta, reproductive performance and milk yield of dairy cows

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In the present study we assessed the effect of the use of an anionic salt and supplementary administration of vitamin E and Se throughout the dry period, on the prevention of retained placenta (RP), milk yield and reproductive performance of dairy cows. Data were collected from three commercial farms and 456 dairy cows in total, which experienced similar environmental and managerial conditions. Each animal entering the dry period was assigned into one of two groups (treated group and control group). All animals were fed the same ration but animals of the treated group also received a blend containing 60gr chloride-ammonium, 1,000 iu of vitamin E and 0.05 ppm Se. Calving ease was evaluated and no manual removal of placenta was attempted. All animals experienced a 50-day (p.p.) voluntary waiting period before the first artificial insemination (AI). Treatment resulted in decrease in the percentage of animals with RP (10.6% vs 17.8%). This reduction was statistically significant ($P<0.05$) in animals, which had not required assistance during delivery, while it was substantial but not statistically significant in animals, which had required assistance during delivery. Occurrence of RP did not affect mean milk production ($P>0.05$) at either 30 or 60 days p.p. There was an overall shorter time intervals between calving and first AI in the treated group ($P=0.08$) but there was no difference in time-to-event for the rest of the examined reproductive parameters between treatment groups ($P>0.05$). The long-term administration of chloride ammonium (throughout dry period, accompanied with vitamin E and Se) has to be further evaluated to ensure safety and contribution to improvement of reproductive parameters.

P019

Pregnancy rate in double purpose bovine herd under two protocols of timed insemination in tropical conditions

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Reproductive efficiency in Venezuelan bovine double purpose herds is variable. Open days from calving to pregnancy are longer than 150 days, while intervals between calving are 450 days or higher. Moreover, one of the main problems in reproductive management in tropical conditions is heat detection on insemination programs. The objective of this investigation was to evaluate two protocols for control of ovulation and pregnancy rates in bovine herds in tropical condition (Lara, Venezuela). Two groups of cycling cows (n=341) were subject to each protocol. The first group (n=166) was synchronized using ear implants of norgestomet (3mg; Crestar) on day 0 plus estradiol valerato (5mg) + Norgestomet (3 mg); on day 7 prostaglandin F2α (25 mg), and 500 U.I eCG on day 9 and finally removing the ear implants. After 56 hours of implants removal, cows were artificially inseminated (AI). The second group (n=175) was treated as follow: intravaginal sponge (Pregnaheat) with 250 mg of medroxyprogesterone acetate (MAP) for 7 days plus 50 mg of MAP and 2.5 mg estradiol benzoato (EB) in the first day of treatment; on day 6 50mg of prostaglandin F2α +500 U.I eCG; day 8 sponge removal, and on day 9 1mg EB and AI 56 h after sponge removal. Collected data was analyzed by logistic regression using SAS. Results showed that treatment using ear implants had better conception rates ($P< 0,05$) when compared to intravaginal sponges (48.48 % vs 37.33 %, respectively) in tropical conditions using double