



A126 OPU - IVF and ET

### ***In vitro* embryo production in Canchim primiparous cows (3/8 *Bos indicus* and 5/8 *Bos taurus*) maintained in grazing area with or without shade presence: preliminary results**

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The aim was to identify the influence of natural shade in grazing system on *in vitro* embryo production (IVEP) of suckling primiparous Canchim cows. Were used 18 donors, previously selected for follicular population, with 385.0±10.24 kg and 26.6±3.50 days post-partum at onset of experiment, while grazing pastures with shade provided by in a silvopastoral system (n=10, PRA, presence of eucalyptus trees with 15x2 m spacing) or pastures without shade (n=8, PR), at Embrapa Southeast Livestock. The Temperature and Humidity Index (THI) and Black Globe Humidity Index (BGHI) were measured during all experimental period in both experimental areas. All pastures were intensively managed in a rotational system. To IVEP, 4 OPU sessions were performed 4 OPU sessions, once a month, from January to April 2017, simultaneously, were measured the rectal temperature (oC). The aspirated follicles (AF) was counted to calculate recovery rate (Rr) and then, were performed the counting and morphological evaluation of cumulus oophorus-oocytes complex (COC). To IVF, semen with fertility recognize of the same bull was used. Cleavage rates (Cr) on D3, hatched blastocysts on Day 7 (HrD7), on Day 8 (HrD8) and on Day 9 (HrD9) rates were evaluated. Those classified in Grade I to III were put in maturation medium and carry to Vitrogen Laboratory (Cravinhos, SP, Brazil) to proceed IVF, IVC, and evaluation of cleavage rates (Cr) on D3, hatched blastocysts on D7 (HrD7), on D8 (HrD8) and on D9 (HrD9) rates. The data were analyzed as repeated measures (PROC MIXED, SAS®) and the results showed as least square means±SE. THI (70.4±0.03 and 70.2±0.02, P<0.001) and BGHI (73.3±0.04 and 72.8 ± 0,04, P<0.0001) values were higher in PR than PRA, respectively and were reducing by month during the experimental period in PR and PRA (P<0.0001). There were no interaction between replica and grazing system for any of the variables, as well there were no differences between cows maintained on PRA or PR, respectively, to RT (38.3±0.11 and 38.9±0.12oC, P=0.78), AF (25.6±2.32 and 28.2±2.64, P=0.46), Rr (83.3±8.69 and 75.2±9.89, P=0.54) Cr (90.2±4.68 and 83.8±5.30, P=0.37), HrD7 (37.7±4.64 and 30.8±5.13, P=0.32), HrD8 (30.8±4.81 and 21.2±5.33, P=0.19), or HrD9 (18.8±3.41 and 15.7±3.67, P=0.54). Contrary to expectations, the number of viable oocytes were higher in January (13.0±2.13) and March sessions than in February (9.8±2.05) and April (8.7±2.10) (P=0.03), coincidentally with higher RT in January (39.4±0.17) and March (39.2±0.16), compare to February (38.4±0.16) and April (38.5±0.16) (P<0.0001). The HrD9 was higher in March (2.7±3.40) when compared to February (1.6±0.41) and April (1.2±0.41) (P=0.04). These results allow us to conclude that animals maintained in PR and PRA were not showed body temperatures during morning that determine thermal stress. Therefore, the IVEP was similar between donors maintained in the same for PR or and PRA grazing system.

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