Transvaginal ultrasound-guided cumulus oocyte complexes aspiration and in vitro embryo production in suckled beef and lactating dairy cattle on pasture-based management conditions

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This study was conducted to determine the use of repeated transvaginal ultrasound-guided cumulus oocyte complex (COC) aspiration on COC recovery rate, in vitro embryo production (IVP) and subsequent pregnancy rates in Holstein Friesian (HF) and Aberdeen Angus (AA) cows (Experiment 1), and in pregnant and non-pregnant Holstein Friesian cows (Experiment 2). Cycling, non-pregnant HF (n=17) and AA (n=32) cows with 40-70 days postpartum, between 3 and 5 years of age were used in the Experiment 1. All cows were submitted to repeated transvaginal ultrasound-guided COC aspiration twice a week for 5-7 weeks. Cumulus ooctye complexes (COC) were in vitro matured, fertilized and cultured for 8 days. An overall of 100 and 350 embryos from HF and AA cows respectively were cryopreserved using a conventional slow freezing (Experiment 1). A total of 81 and 285 frozen-thawed embryos from HF and AA cows respectively were transferred to recipient cows. Pregnancy diagnosis was performed at 60 and 150 days