The effect of parity on the efficacy of an ovulation synchronization (Ovsynch) protocol in buffalo (Bubalus bubalis)

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Abstract:

Abstract The aim of the present study was to study the effect of parity on the efficacy of an Ovsynch protocol in buffalo. Buffalo heifers (HE; n = 8) and cows (BC; n = 9) were used to monitor ovarian follicular dynamics and evaluate serum progesterone profiles during this protocol. A total of 385 control buffalo heifers (CHE; n = 219) and cows (CBC; n = 166) were used to compare conception rates following the application of this protocol. The heifers and cows were cycling. All treated animals were injected with GnRH on day 0, PGF2α on day 7, GnRH on day 9 and artificially inseminated 16 h later. Ovarian changes were monitored daily using ultrasound and serum progesterone (P4) evaluated in the investigated animals. All heifers and 5 cows had follicles >8 mm at the first GnRH injection. The first GnRH injection resulted in ovulation in 7/8 HE (87.5%) and 5/9 BC (55.5%). Following the second GnRH injection, ovulation occurred in 100% of HE and 88.8% of BC. Ovulation occurred earlier in BC (10.4 ± 7.6 h) following the second GnRH injection than in HE (22.6 ± 5.4 h). Average P4 concentrations of HE were higher than those of BC on day 7 (P

Keywords:

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