

## Effect of Bull Exposure on Post-Partum Estrus Interval in Nili-Ravi Buffaloes

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**Abstract :** The objective of this study was to determine the effect of bull exposure continuously or intermittently or its excretory products after calving on postpartum interval to estrus, in Nili-Ravi buffalo. Forty-eight buffaloes of Nili-Ravi breed were allocated one of the four treatments in a totally randomized plan using a 4 x 1 factorial design. The four treatment groups were BEC (Bull Exposed Continuously), BEI (Bull Exposed Intermittently), EPB (Excretory Products of Bull) and BNE (Bull Not Exposed). BEC; buffaloes (n = 12) were exposed continuously to the physical presence of a bull whereas in BEI; buffaloes (n = 12) were exposed intermittently to the physical presence of bull. EPB; buffaloes (n = 12) were exposed to discharge waste (urine and feces) of bull and BNE buffaloes (n = 12) were not exposed to a bull or discharge waste of bulls. Buffaloes were exposed on day 15 after parturition. Day 15 postpartum represented d 0 for each treatment. The postpartum interval from calving to first behavioural estrus was 66.88 days in BEC, 75.12 days in BEI, 77.28 days in EPB and 76.5 days in BNE treatments. Postpartum interval to first behavioural estrus was shorter in BEC than BEI, EPB, and BNE treatments. There was no significant difference in postpartum interval to estrus between BEI, EPB and BNE treatments. In present study, the percentage of buffaloes showing estrus during experimental period was 75.0%, 66.66%, 66.66% and 58.33% in BEC, BEI, EPB and BNE treatments, respectively. The mean serum progesterone concentration did not differ significantly between BEC and other (BEI, EPB, and BNE) treatments. It was concluded that presence of bull has positive effect in reducing calving interval in Nili Ravi buffalo.

**Keywords :** calving interval, biostimulation, buffalo, bull exposure

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