



RESEARCH ARTICLE.....

## Estrus induction and conception rate with single and double dose of PGF<sub>2</sub> α in Jaffrabadi buffaloes

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**ABSTRACT.....** The prostaglandin and its synthetic analogue are considered as drug of choice in reproductive management. A total of twenty Jaffrabadi buffaloes with reproductive disorders were selected from cattle breeding farm, Junagadh. All twenty buffaloes (Group I) were treated with single dose of Prostaglandin (synthetic analogue, clostrinol, 2 ml) while the animals which did not respond (Group II) to first injection of Prostaglandin were subjected to second injection of Prostaglandin 11 days after first treatment. A total of six animals (30%) responded to first dose of PGF<sub>2</sub>α, while eight animals (57%) responded to second dose of PGF<sub>2</sub>α. The mean time required for induction of heat in first and second group was 70.24 ± 1.44 hrs and 56.86 ± 1.96. The mean duration of estrus proper in first group was 19.18 ± 0.69 hrs, while in second group the mean duration was 16.13 ± 0.42 hr. The conception rate in the present study was 43.05 per cent for the first group of animals and 49 per cent for the animal that were treated with second dose of PGF<sub>2</sub>α. In conclusion, administration of PGF<sub>2</sub>α at eleven days interval causes faster heat induction and better conception rate.

**KEY WORDS.....** Conception rate, Estrous synchronization, Prostaglandin

**HOW TO CITE THIS ARTICLE** - Ahlawat, A.R., Ghodasara, S.N., Dongre, V.B., Gajbhiye, P.U., Murthy, K.S., Savaliya K.B. and Vataliya, P.H. (2015). Estrus induction and conception rate with single and double dose of PGF<sub>2</sub> α in Jaffrabadi buffaloes. *Asian J. Animal Sci.*, **10**(1) : 54-57.

**ARTICLE CHRONICLE** - Received : 21.03.2014; Revised : 30.04.2015; Accepted : 14.05.2015

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