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## Prevalence and risk factors of anoestrus and repeat breeding in dairy cows

MD. ASHIKUR RAHMAN BHUIYAN, MUHAMMAD RIAZUL ISLAM, FARIDA YEASMIN BARI,  
MOHAMMAD MUSHARRAF UDDIN BHUIYAN

*Bangladesh Agricultural University, Dept. of Surgery and Obstetrics, Bangladesh*

### Abstract

The purpose of this study was to determine the prevalence of anoestrus and repeat breeding and its influencing risk factors at selected areas of Cumilla district in Bangladesh. The data were collected on cows breed, age, BCS, parity, peak milk yield, occurrence of anoestrus and repeat breeding from 321 cows of two Upazilas of Cumilla district using questionnaire. The prevalence of anoestrus was 9.3% (30/321) and the prevalence of repeat breeding was 7.5% (24/321). The highest prevalence of anoestrus (41.7%) was observed in local cows and the lowest was observed in Friesian cross counterpart (5.0%). The highest prevalence of repeat breeding (22.7%) was observed in Sahiwal cross and the lowest was observed in Jersey cross counterpart (3.7%). The highest prevalence of anoestrus (35.7%) was observed in 73–96 months old cows and the lowest was observed in 24–48 months old counterparts (11.0%). The highest prevalence of repeat breeding (28.6%) was observed in 73–96 months old cows and the lowest was observed in 24–48 months old counterpart (8.7%). The prevalence of anoestrus was the highest 26.7% in cows with BCS of 3.5 and was the lowest 4.9% in cows with BCS of 3.0. The highest prevalence of repeat breeding (26.7%) was observed in cows with 3.5 BCS and the lowest was observed in 2.5 BCS counterpart (4.4%). The highest prevalence of anoestrus (14.3%) was observed in cows with 4–7 parity and the lowest was observed in 2–3 parity counterpart (6.3%). The highest prevalence of repeat breeding (12.2%) was observed in cows with 1 parity and the lowest was observed in 2–3 parity counterpart (4.5%). The highest prevalence of anoestrus (40.2%) was observed in cows yielded 1–5 l d<sup>-1</sup> milk and the lowest was observed in cows yielded 11–20 l d<sup>-1</sup> counterpart (7.5%). The highest prevalence of repeat breeding (20.0%) was observed in cows yielded 1–5 l d<sup>-1</sup> milk and the lowest prevalence was observed in cows yielded 11–20 l d<sup>-1</sup> counterpart (5.4%). The difference in prevalence of anoestrus and repeat breeding among breeds, BCS and age groups was significant ( $p < 0.05$ ). In conclusion, the prevalence of anoestrus and repeat breeding was 9.3% and 7.5%, respectively which might be influenced by breed, age and BCS of cows.

**Keywords:** Anoestrus, dairy cows, prevalence, repeat breeding, risk factors