

Patterns of Oestrus Onsets and Behavioural Signs in Holstein-Friesian Dairy Cows in the peri-urban Khartoum City (Sudan).

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1 ABSTRACT

The objective of this study was to determine the patterns of oestrus onsets and behavioural signs in Holstein – Friesian dairy cows. One hundred and Forty six (146) cows from the control group and 92 cows from the prostaglandin F_{2α} treated group were visually observed for oestrus onsets and other behavioural signs in group pens and open exercise yards. The observers recorded the time when oestrus behaviour first became evident, noted and registered the identity of the cow exhibiting the behavioural interactions associated with oestrus. Fifty three (53) % of the onsets of oestrus in both control and treated cows were associated with night hours, 18.00 pm to 06.00 am, and most frequently between 18.00 and 20.00 hours. Forty three (43), 56 and 63% of the oestrus onsets occurred at night in winter, hot dry summer, and hot wet summer respectively. Forty six (46) % of the cows at parities 1 and 2, and 62% of those at parities 3 and over showed onsets of oestrus at night. Onsets of oestrus occurred mostly at night in cows at 41-60, 61-80 and 101 and over days postpartum as compared to cows at 81-100 days postpartum. Onsets of mounting activity occurred mostly during daylight hours in winter and hot dry summer as compared to the hot wet summer. Onsets of mucus discharge occurred mostly at night in winter as compared to the summer seasons. Onsets of mounting activity and mucus discharge were low at night for cows of all parities. Cows at 41-60 days postpartum had the highest mounting activity at night as compared to cows at 61-80, 81-100, and 101 and over days postpartum. Onsets of mucus discharge were low at night for all cows at 41 and over days postpartum. These results suggest that onsets of standing when a cow is mounted by the herd mate occur at night. Behavioural signs of mounting and mucus discharge are associated with daylight hours. Season of the year, parity and days postpartum of the cow interfere with patterns of oestrus onsets and behavioural signs.