

Feeding Behaviour of Lactating Dairy Cows: Responses to Changes in Feeding Management.

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Feeding behaviour can affect both health and productivity of dairy cows, but little is known about how feed availability affects feeding behaviour patterns. The objectives of this research were to: 1) describe the feeding patterns of lactating dairy cows, and 2) to determine the effects of changing feeding management on these patterns. In this study we used 11 primiparous and 13 multiparous cows housed in a free-stall barn and fed a TMR twice daily. These cows were fitted with transponders that allowed us to automatically monitor the frequency of visits and duration of each visit to the feed bunk, using a computerized monitoring system (GrowsafeTM Systems Ltd.). Cows were subjected to two different feed push-up schedules. In the baseline schedule, cows were fed at 0600 h and 1500 h, and feed was pushed closer to the cows at 1100 h and 2130 h. In the experimental schedule, two additional feed push-ups at 0030 h and 0330 h were incorporated into the feeding schedule. Milking and delivery of fresh feed clearly had a much greater affect on the diurnal pattern of bunk attendance than did the feed push-ups (Fig.1). During the baseline observations, the cows consumed 7.3 meals d⁻¹ and spent 349.7 min d⁻¹ at the feed bunk. Although adding two more feed push-ups did not change the number of meals d⁻¹, it did result in the cows spending 12.4 min more (P=0.002) time at the feed bunk in a 24 h period. During the experimental period, the feed bunk attendance pattern changed (P<0.05): cows increased the time at the feed bunk following the 1515 h feeding and the 2130 h push-up and decreased the time at the feed bunk following the 0600 h feeding. In conclusion, increasing the number of feed push-ups alters the diurnal pattern of feeding behaviour, but the effect of pushing up feed is minor compared to either milking or delivery of fresh feed.

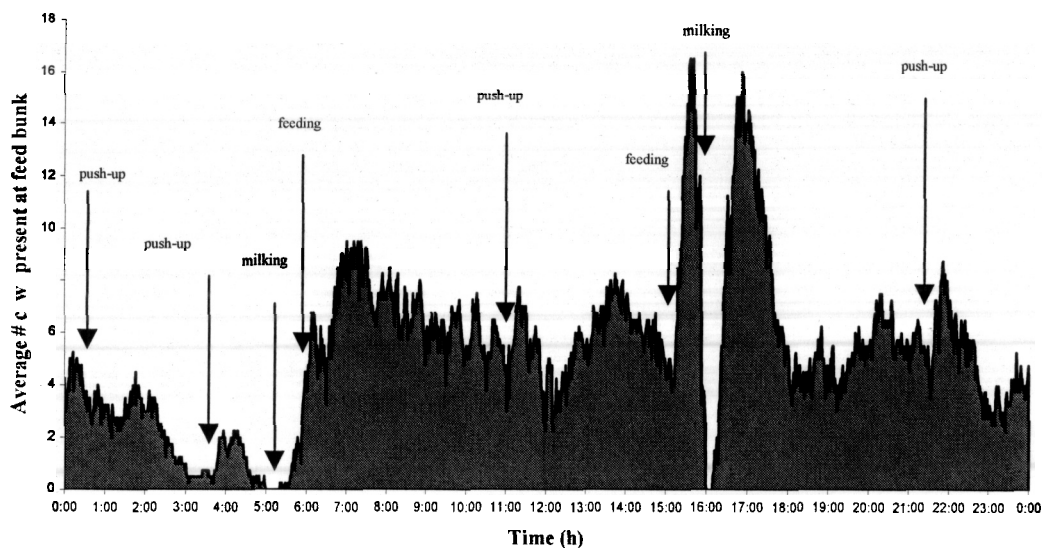


Fig. 1. Feed bunk attendance by lactating dairy cows.