Changes in Feeding, Drinking, and Standing Behavior of Dairy Cows over the Transition Period

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During the transition period dairy cows experience a series of nutritional, physiological and social changes. Even though there has been considerable nutritional research on transition cows, little is known about how cow behavior changes during this period. The objectives of this study were, therefore, to identify changes in feeding, drinking and standing behavior over the transition period. Fifteen transition dairy cows were monitored from 10 d before until 10 d after calving. The daily time spent feeding during the post-calving period was on average 25 min shorter than during the pre-calving period. The number of feeding meals per day averaged 9.2 and 11.0 during the pre- and post-calving period, respectively, with little variation within periods. The time spent drinking per day averaged 5.6 min during the pre-calving period, then steadily increased after the calving event at a rate of 0.4 min d^{-1}. The number of daily drinking meals increased over the entire transition period from 6.6 in the pre-calving period to 9.4 in the post-calving period. The average standing time per day was highest during the days around calving (14.4 h) and lowest during the pre-calving period (12.3 h). On the day of calving there was a dramatic increase in the number of standing bouts per day (21.8 bouts) compared to the pre- and post-calving averages of 11.7 and 13.1 bouts, respectively. These results provide an improved understanding of changes in cow behavior at transition. In particular, changes in feeding behavior may help account for the well documented changes in feed intake at transition, and changes in standing time suggest that cow comfort be particularly important during the transition period.