

Behaviour in dairy calves with and without their dams on pasture

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Common practice in dairy farming has been to separate cow and calf within short time after birth. There is increasing debate and attention around the ethical aspects with a farming system with early separation, and there is a need for more knowledge on cow-calf contact in dairy farming. The aim of this study was to examine behaviour of dairy calves with and without their dams on pasture. A total of 20 cow-calf pairs were divided into two treatments, and two groups per treatment. Ten pairs were early separated (ES) where cows and calves were let out on separate pastures, and ten pairs had cow-calf contact (CC) fulltime on pastures until week 6 after birth with gradual separation and weaning in week 7-8. Individual direct behaviour observations of calves on pasture were carried out in week 3, 6 and 9 for each group, one day per week and 8 hours per day. This was done with instantaneous sampling including use of calf hutch, grazing, lying and standing/moving, and one-zero sampling including allogrooming and play. Statistics were done on Minitab with ANOVA-Mixed effects model where the model used for each behaviour was: $y = \text{intercept} + \text{treatment} + \text{Group}(\text{treatment}) + \text{Calf}(\text{treatment}; \text{group}) + \text{week} + \text{treatment} * \text{week} + \text{error}$. The results showed that ES-calves used the calf hutch significantly more than CC-calves, but CC-calves used it more with age. There were no significant differences in the other behaviours between the treatments, but several differences with age, where e.g. calves in both treatments grazed the most and were lying the least in week 9 after weaning.