

## Suckling of dairy calves by their dams: consequences on animal performances, behaviour and welfare

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In most European dairy farms, calves are separated from their mothers immediately or within few hours after birth. This early separation is increasingly questioning the society about animal welfare and some farmers are keeping calves with their mothers until weaning. The consequences of this practice have been studied mainly from the animal welfare point of view. This study aimed at studying the impact of this practice on milk yield, milk composition, growth of calves and animal behaviour and welfare. A classic rearing system ('Control') was compared to a suckling rearing system ('Mother') involving 14 cows each with their calves monitored for 15 weeks after calving. In the 'Control' group calves were separated from their mothers immediately after birth and fed with an automatic milk feeder until weaning at 12 weeks. In the 'Mother' group, mother-calf contact was allowed from birth to weaning for 9h between the morning and evening milkings. During the first 8 weeks of lactation, the milked milk loss in the 'Mother' group was 11.3 kg/d. Milk fat content was lower in 'Mother' group than the 'Control' group (-9.3 g/kg) while milk protein content was higher (+0.9 g/kg). Milk somatic cells count and calves' growth were not significantly different between the two groups. Weaning distress affected more both cows and calves from the 'Mother' group than calves from the 'Control' group that were only affected by the change of diet. In the 'Mother' group, cows and calves' vocalisations were maximum on the day after the weaning and stopped 7 d later. In this experiment, we found that allowing dairy calves to suckle their mother was responsible for an important impairment of cow's performances. Nevertheless, all calves, including males, were reared with their mother. In practice, only the replacement female calves are reared until weaning, which suggest the feasibility of this practice in on-farm conditions.

Key words: dairy calves, animal performances, milk production, behaviour, welfare