

Effect of Cow-Calf Contact on Cow Motivation to Reunite with Their Calf

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Why is this important?

Cow-calf separation has been an area of interest and concern among the public and with respect to animal welfare. On most dairy farms, the cow's ability to express maternal behaviour, such as licking and nursing, is limited, as it is standard practice to remove a calf within a few hours of birth. Although the removal of the calf is done early to protect the health of the calf and it is believed that this will also prevent a strong maternal bond, there is question as to whether cows are still motivated to reunite and interact with their calves. Despite the fact that nursing the calf is generally considered to be an essential component of maternal behaviour, it is possible that a cow-calf bond could form in the absence of suckling. Exploration and further understanding of this behaviour and interaction could impact future management of dairy cows and their calves.

The aim of this study was to assess the motivation of dairy cows with different levels of cow-calf contact to reunite with their calf. It was hypothesized that cows routinely kept with their calf, regardless of whether suckling was allowed, would be more motivated than cows that had been separated from their calves immediately.

What did we do?

Motivation tests can be used to evaluate the value animals place on an experience or a resource. This type of test determines the effort an animal will make to obtain a resource. The method of allowing cattle to push a one-way weighted gate to gain access to a reward (their calf) was used in this study. The more weight the cow pushed, the stronger the motivation to access her calf.

A total of 31 Holstein cows that recently gave birth were assigned to 1 of 3 treatments: 1) separated from their calf within 2 hours after birth and allowed no contact, 2) allowed to spend nights with their calf but fitted with an udder net to prevent suckling, or 3) allowed to spend nights with their calf and to be suckled. At 5 to 8 days after calving, cows were tested using the weighted gate daily (increasing the weight everyday), until cows failed to open the gate for 3 consecutive days or pushed open the maximum weight of 90 kg.



Figure 1. Test pen with weighted gate separating cow and calf.

