

Abstract 42:

Maternal bonding in dairy cattle: does type of cow-calf contact matter?

Margret Wenker^{1*}, Kees van Reenen^{1,2}, Cynthia Verwer³, Eddie Bokkers¹

¹ Animal Production Systems Group, Wageningen University & Research, The Netherlands

² Livestock Research, Wageningen University & Research, The Netherlands

³ Louis Bolk Institute, The Netherlands

* Corresponding author. E-mail: margret.wenker@wur.nl

It is common practice in dairy farming to separate cows and calves within a few hours after parturition, which raises public concern with regards to animal welfare. Currently, various stakeholders are interested in alternative rearing systems that allow for prolonged cow-calf contact (CCC). When contact between the dam and her young is allowed a bond develops, but little is known about how the type of contact affects the strength of this bond. Therefore, we first assessed the motivation of dairy cows with different types of CCC to reunite with their own calf. Our results showed that the calf is a valuable resource that dairy cows are willing to work for, but that dairy cows' motivation to reunite with their calves is greatest when cows have full CCC (suckling allowed) in contrast to no (separated at birth) and partial CCC (suckling prevented). Second, we evaluated the effect of type of CCC (full contact vs partial contact) on calf-directed affiliative behaviour of dairy cows at birth and in the weeks following parturition. We found that, except in the 48 hours after calving, cows allowed full contact with their calves spent more time allogrooming and in proximity to the calf compared to partial CCC. Overall, the outcomes substantiate that full CCC strengthens the bond between cow and calf. The bonding might be reinforced by the suckling of the calf, which is known to increase oxytocin levels that mediate social bonding.