Cow and calf together – a possibility for modern dairy farming?

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Research on consumer preferences shows that dairy production systems with zero grazing and the early separation of cow and calf has low support among consumers. It has also been described that these views do not change when consumers gain knowledge about management of dairy cows. There are farmers in several European countries that keep cow and calf together during the entire milk feeding period but they do so with limited scientific support. The knowledge available indicates better welfare in the calves, but immediate and long term effects on the cows have not been described.
A project aiming to develop a dairy production system with cows and calves together in an automatic milking system recently started at the Swedish University of Agricultural Sciences. Immediate and long term effects on the nursing cows as well as on their calves will be evaluated. Heifers born in the project will be followed until their own first lactation. Milk production, feed intake, energy balance in early lactation, activity, behavior, fertility, health and indicators for longevity, for example telomere length, will be included.

The first calves in the project were born in August 2019 and preliminary data from 11 CowCalf pairs is available. In lactation week 4-7 the control cows produced (mean±sd) 32±10 kg milk per day and cows that were nursing their calf delivered 16±8 kg milk per day to the robot. During the first seven weeks in life conventional calves gained 0.9±0.2 kg/day while the calves that were kept with their dams gained 1.3+0.9 kg/day. Animal handling, cow traffic and health in CowCalf pairs has exceeded expectations so far. There has been a very large variation between cows in the CowCalf group in milk yield to the robot. This may be due to variation in milk yield but can also be a sign of variation in milk ejection to the robot. Milk ejections will be studied in detail later in the project. Cows and calves will be separated when calves are around 16 weeks old. Two more batches of CowCalf pairs are planned in the project; with calvings starting in March and September 2020.