

‘Whose views and ways are changing?’

Perspectives of change and transition related to cow-calf contact systems in European dairy farming

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Abstract

This presentation summarises some of the changing perspectives of and transitions to cow-calf contact systems, including identifying the challenges and benefits of the various types of systems, in particular dam-rearing and nurse-cow systems. No dairy system in the study countries was initially designed to enable cow-calf contact, but a multitude of systems allowing cow-calf contact have since been developed based on existing farm structures. Interviews and case studies show that the development requires significant changes in practices, attitudes and farm structures, all of which require a lot of investment. Research over the last two to three years in this area has considered several potential ways in which organic dairy systems could encompass forms of cow-calf contact. Whilst on the one hand these studies have acknowledged the ‘naturalness’ of cow and calf systems, including the motivation behind them and the need for the cow and calf to be together, ‘unnatural elements’ have also been highlighted, for example the high milk yields, deep udders and large herd sizes in today’s dairy sector. Some issues remain unresolved and the future organic dairy sector will be required to find further solutions. One major issue is that of male calves, which are often removed from their dam early and in an abrupt way. This raises questions as to whether the current development of dam-rearing and other types of cow-calf contact systems can be seen as niche innovations, or as part of a larger change in the socio-technological landscape around dairy farming and calves. These changes are still ongoing in terms of organising new systems that are friendly and less restrictive for cows and calves, and could potentially be part of a larger transition at the systemic dairy farming level.

Introduction

Dam-calf contact systems can be seen to contribute significantly to the positive physiology and natural behaviour of calves and mother cows. In organic farming, as in conventional farming, the separation of calves and cows within days of the birth has generally been accepted. This practice is now being increasingly debated, because it does not meet the natural needs of the cows or calves. The CORE-Organic project GrazyDaiSy began in March 2018 with the aim of investigating the possibilities and sustainability of implementing dam-rearing systems in commercial dairy herds. A Danish project, KALVvedKO (‘Cow’n’calf’), began in January 2019 with a focus on developing and testing housing systems for bonded cows and calves, and identifying critical issues regarding the implementation of these systems. Since the implementation of these two projects, we have observed a generally increasing interest in dam-rearing systems throughout Europe and the introduction of several projects targeting different aspects of cow-calf systems. These two projects have worked closely with environmental actors, and aim to investigate farmers’ motivations and experiences, build on practical experience in the

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field, and investigate change processes related to establishing cow–calf contact systems. The aim of this presentation is to summarise some of the aspects of change and transition in the preliminary analysis of these systems, including the identified challenges and benefits of the various types of cow–calf contact systems.

Material and methods

This study was based on a joint analysis of semi-qualitative interviews (face-to-face and phone, recorded or with responses written down), conducted during the project period in Norway (5 case studies, 2018–2019), France (3 case studies, 2018–2019, and interviews and observations during a longitudinal study with 20 dairy farmers practising a certain type of nurse-cow system in 2019–2021) and Denmark (31 interviews with farmers, advisers and researchers, 2018–2019, and results from 2 years of stable schools, 2019–2020). The analysis of the case-study interviews, Danish actor interviews and interviews from 12 years of studies in the Netherlands on cow–calf systems were analysed and published in 2019 and 2020 (Vaarst et al. 2019 & 2020). In the present study, the focus of the analysis is on aspects of change and transition in cow-calf contact on dairy farms and within the dairy sector.

Results

The starting point: No dairy farm was designed to dam-rearing in the first place

Clearly, no dairy farming system in the countries where this research was conducted was designed to incorporate dam-rearing. Every farmer had started with an existing, more traditional dairy system and developed a dam-rearing system through various 'learning-by-doing' experiences. This may explain the very different systems emerging in the Netherlands, France, Norway and Denmark. Most of them were developed by innovative farmers, who for various reasons, took the initiative and made it possible to keep calves with their mothers for a period of between a few weeks and the entire suckling period, that is, a minimum of three months. Exchanges of experience had occurred to some degree and in some places. During the project period, educational material in terms of videos, articles in farming magazines and presentations enabled exchanges of inspiration. However, no dairy company had developed brands or labels for milk from farms that practised dam-rearing, and very few farmers in the study had received special recognition for or economic benefit because of their dam-rearing system.

Increasing interest in nurse cow systems

In Denmark, the discussion within and beyond farming turned increasingly to nurse-cow systems. One reason for this was that there seemed to be a general issue with reduced milk let-down in the milking parlour in the first few dam-rearing systems to be set up, which discouraged many farmers from trying these systems. Furthermore, the logistical challenges of having a relatively high number of calves in a traditionally designed dairy system seemed huge. Establishing a nurse-cow system was attractive because the nurse cows could be moved to another building or use land further away from the farm. In France, a nurse-cow system has been in development since 2010, and the GrazyDaiSy project followed farms where this system had been applied. In these systems, weaning and separation take place at the same time, when the calves are between four and ten months old. The French farmers seem very satisfied with this system, although it relies on the availability of summer grazing. Interestingly, the pattern of diffusion of the system could be described in a relatively detailed way, and study trips as well as mutual inspiration had played a big role in the system's dissemination. However, nurse cow systems often involves early separation between the dam and the calf, and does not meet the dam's need to nurse her calf, so the question is whether it fulfils the goal of more natural behaviour, as well as all the societal expectations.

Aspects of 'behavioural change' and personal motivation

If the transition to cow–calf contact systems is viewed through the lens of 'behavioural change', there is a focus on the farmer and his/her personal motivations and choices. There is a clear

assumption that ‘establishing a cow–calf contact system’ is an option open to everybody. However, since some consumers and retailers only recently have shown a readiness to pay a premium for cow–calf contact, this had obviously not been a motivation for farmers, which was also clear from the interviews. From the interviews it was clear that most farmers who had implemented dam-rearing systems were driven very much by the pleasure of seeing it work and seeing the interaction between calves and cows. They described how they were touched and impressed, for instance, by the mother’s protection of her calf and their reaction to separation.

Situated social learning and resource investment required

As the projects developed, it became increasingly clear that cow–calf contact systems required significant investment of personal and often physical/technological resources. In other words: introducing a cow–calf system cannot happen without systemic change. In addition, considerable education was also required, for example, in terms of observing and supervising calves and cows in different ways. This suggests that support from colleagues, the dairy sector, industry and other actors could, in many cases, be a decisive factor for farmers in whether they dare to invest and learn. The interviews showed that farmers’ priorities and views of the different qualities and aspects of the various cow–calf contact systems clearly influenced each individual farmer’s choice and shaping of the system on his or her farm. For example, if a farmer prioritised allowing the mother cow to fulfil her natural role, dam-rearing was the preferred system, as well as letting bull calves stay with the mother. Many of the interviewed actors, however, placed major focus on the needs of the calf. This became an increasingly multi-faceted debate for many actors, which raised awareness of the different interests and possibilities.

Cow-calf contact systems as part of bigger changes at farm level

Other innovative practices were combined with the cow–calf contact system. In the Netherlands, dam-rearing systems had originally started as part of the overall concept of ‘family herds’, in which all age groups were kept together. The French farms, with their nurse-cow systems, also introduced various combinations of cross-breeding, seasonal calving and milking only once per day. Furthermore, the brand ‘La bille bleu’ is an example of calves raised in CCC-systems, being slaughtered on the farm and sold at a premium price. In Norway and Denmark there were examples of farmers who introduced cow–calf systems alongside with other systemic changes, such as agroforestry.

Aspects of systemic change

While theories of trigger events, critical incidents and the diffusion of innovation can in part be used to analyse the implementation of cow–calf contact systems at the level of farms, farming systems and groups of farms, it is also relevant to look at conditions for fostering a more systemic change within the dairy sector. The initiation and funding of projects with this focus indicates the presence of a more collective and societal awareness of the issues connected with the early separation of the cow and her calf after birth. However, the question remains as to whether this is part of a larger transition which will require multiple shifts and layers of change throughout the sector, as well as interplay between niche innovations and a partial reshaping of the landscape of organic dairy farming and potentially beyond. Such systemic change may require some sort of shock or destabilisation to create new windows of opportunity for larger changes. To some extent this shock may be present through some of the arguments around climate change (i.e. less, but more welfare-friendly animal farming), and some animal rights movements raising issues with industrial animal farming, including both the dairy industry and veal production. One of the dilemmas that was constantly raised throughout the period covered by the study is that of the difference between ‘calves staying in the herd’ and ‘calves leaving the herd’.

Final discussion and future perspectives

At the farm level, major efforts are required to implement suitable calf- and cow-friendly dam-rearing systems. The farmer's perspective also has to change, both with regard to observing and understanding animal–animal and human–animal interactions, and to how the whole system works. This is in addition to the need to keep individual animals under close surveillance to monitor their health and welfare. Thus cow–calf systems require the same amount of time and effort as systems with separated calves and cows, but with a focus in different areas. Perceptions are also changing, and farmers need to trust in their animals' capabilities to a larger extent, which also partly breaks with some of the animal husbandry that is often considered important when taking care of cows and calves in a system with early separation, such as knowing exactly how much milk each calf is given. This shift from 'being completely in control' to 'trusting that the animals can manage' is identified as a key human learning in these systems as a component of the shift in focus to observing animals and spending time with cows and calves differently.

Whilst the focus of these projects has been quite centered around farmer decisions and farming systems' development, the transition to mother-bonded rearing or any other form of cow–calf contact system on a larger scale still requires considerable changes on multiple levels, both sectoral and societal. Many actors see cow–calf contact systems as a part of a larger systems change towards agriculture with fewer animals, which are kept more in harmony with the area and landscape (from a systems point of view) and which are more animal friendly because they meet animals' needs to a higher degree. On the other hand, some actors argue that cow–calf contact systems are less resource efficient and thereby less climate efficient, because calves drink more milk when with cows than they are offered under traditional systems. This illustrates how many challenges remain in terms of implementing cow–calf contact systems more widely. Another issue is the current pricing system, which still focuses almost solely on volume of milk production, leading to negative economic consequences for those farmers who keep calves with cows. In terms of potential future transition pathways, we may witness the emergence of cow–calf contact systems which offer alternative and interesting niche products, those which are more widely accepted as a 'new normal' way of dairy farming or a combination thereof.

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