

Systems for mother-bonded calf rearing during the milk feeding period in organic dairy farming.

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Systematic separation of cow and calf early after calving is common practice in both organic and conventional dairy farming. It is broadly accepted by professionals within the dairy sector as a necessity for producing milk for human consumption and justified by the severe reaction of both cow and calf if separation occurs later than 24 hours after calving. The practice of early separation conflicts with the organic principles and is increasingly questioned by consumers, who argue for the development of a dairy production system that supports rearing of cows together with their own calves for an extended time.

The main objective of this project is to develop strategies for mother-bonded rearing systems under different Danish organic farming conditions and quantify their effects on farm productivity and economics through analyses of existing dairy cow-calf systems and published experiments. The first step includes a systematic collection of farm data and system descriptions from existing cow-calf systems with focus on housing, management and outcomes of production.

Our data collection so far shows that mother-bonded rearing of dairy calves is practiced in a variety of ways with herd size from 30 to 85 cows and milk production delivered to the dairy between 4,000 and 9,500 kg/cow/year. Calves stayed with the dam either full time, part time or full time in the beginning with diminishing time together towards weaning, which led calves to drink between 6-7 l/day and up to 14-16 l/day.

Farmers either housed calves and all lactating cows in one group or housed lactating cows with or without calves in two separate groups. Farms used both deep litter and

cubicle systems as well as both parlour and robotic milking systems. Finally, calves were either weaned and separated gradually with multiple steps or abruptly at once.

The next step will be a synthesis of collected farm data, system descriptions and literature, which will go into developing different strategies for mother-bonded calf rearing in collaboration with Danish organic farmers.

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Background

Systematic separation of cow and calf early after calving is common practice in both organic and conventional dairy farming. It is broadly accepted by professionals within the dairy sector as a necessity for producing milk for human consumption and justified by the severe reaction of both cow and calf if separation occurs later than 24 hours after calving. The practice of early separation conflicts with the organic principles and is increasingly questioned by consumers, who argue for the development of a dairy production system that supports rearing of cows together with their own calves for an extended time.

Objective

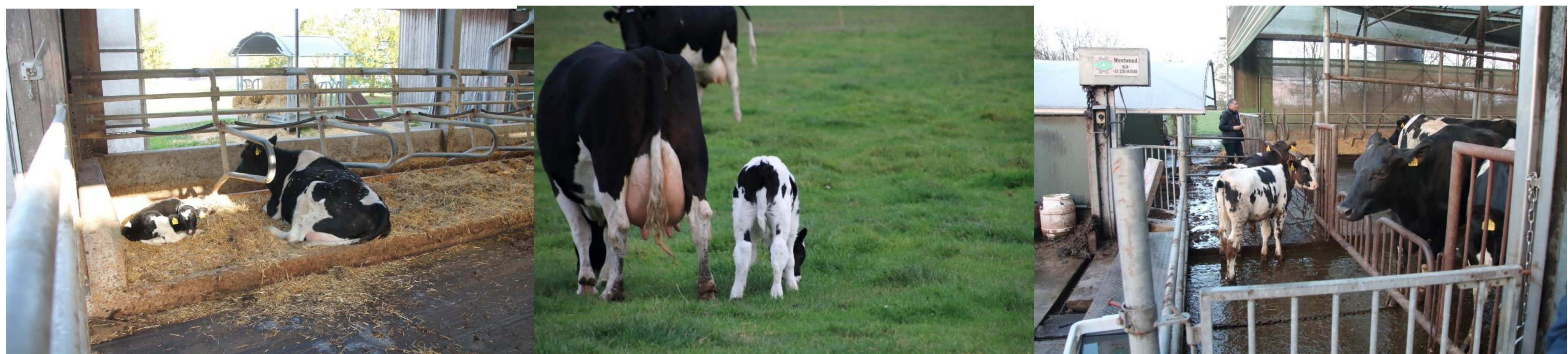
The main objective of this project is to develop strategies for mother-bonded rearing systems under different Danish organic farming conditions and quantify their effects on farm productivity and economics through analyses of existing dairy cow-calf systems and published experiments.

Materials and methods

The first step includes a systematic collection of farm data and system descriptions from existing cow-calf systems with focus on housing, management and outcomes of production. The next step will be a synthesis of collected farm data, system descriptions and literature, which will go into developing different strategies for mother-bonded calf rearing in collaboration with Danish organic farmers.

Results

Our data collection so far shows that mother-bonded rearing of dairy calves is practiced in a variety of ways with herd size from 30 to 85 cows and milk production delivered to the dairy between 4,000 and 9,500 kg/cow/year. Calves stayed with the dam either full time, part time or full time in the beginning with diminishing time together towards weaning, which led calves to drink between 6-7 l/day and up to 14-16 l/day. Farmers either housed calves and all lactating cows in one group or housed lactating cows with or without calves in two separate groups. Farms used both deep litter and cubicle systems as well as both parlour and robotic milking systems. Finally, calves were either weaned and separated gradually with multiple steps or abrupt at once.



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