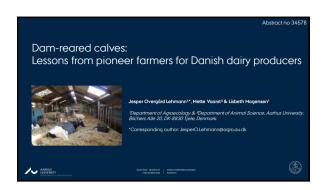
Dam-reared calves: Lessons from pioneer farmers for Danish dairy producers

Jesper Overgård Lehmann^{1,*}, Mette Vaarst² & Lisbeth Mogensen¹

¹Department of Agroecology and ²Department of Animal Science, Aarhus University, Blichers Alle 20, DK-8830 Tjele, Denmark

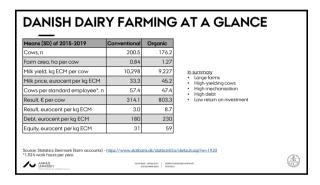
*Corresponding and presenting author: JesperO.Lehmann@agro.au.dk.

In Denmark, separation of dairy calves from their dam commonly occur within the first 24 to 48 hours whereas weaning from milk occur around either 8 weeks (conventional) or 12 weeks (organic). Consumers increasingly question the practice of early separation, and there is a growing interest among Danish dairy farmers for developing new housing and management systems that incorporate a type of dam-rearing. Danish dairy farms are mostly relatively large with high-yielding cows in capital intensive and high cost systems that sets a tight margin for the milk price, which may challenge the implementation of dam-rearing. Several farmers in northern Europe practice different forms of dam-rearing, and their choices and experience may serve as inspiration for Danish dairy farmers. So far, we have visited 9 farms in Scotland, The Netherlands and Germany that represent a variety of breeds and a herd size ranging from 30 to 130 cows as well as an average of around 5,000 kg milk delivered plus 1,300 kg drunk per calf. The 5 highest yielding herds milk cows twice per day during the dam-rearing period. Six herds combine an initial period of full-time contact with a period of part-time dam-rearing. Separation occur between 4 and 22 weeks after calving, and 6 herds separate cow and calf abruptly whereas 4 herds wean calves abruptly. One case from The Netherlands and 1 from Scotland represent particularly promising systems for Danish dairy farmers. On the Dutch farm, calves are kept in separate deep litter area for the first 120 days, and a milking robot is used to gradually reduce the amount of time that the dams gain access to this area. Weaning occurs 2 weeks after separation with both separation and weaning done gradually. This farm delivers 9,500 kg of milk to the dairy per cow per year. On the Scottish farm, calves and dams are kept full-time in the same area the first 3 months and part-time the following 3 months. Weaning occurs gradually with nose flaps one week before a gradual separation. Based on these case studies, different implementation strategies will be developed and assessed for various impacts including production economics.











FARMS VISITED WITH DAM-REARING							
Farm	Herd	Milk	Calving	Dam-rearing	Separation	Weaning	Separation
rarm	size	yield*	system	system	time**	type	type
Scotland			•				•
Farm 1	55	4,000	Spring	Partial	22 weeks	Abrupt	Abrupt
Farm 2	130	6,500	1/2 spring, 1/2 autumn	Partial	26 weeks	Gradual	Gradual
The Netherlands				•		•	
Farm 1	60	6,500	Summer	Full	4 weeks	Gradual	Abrupt
Farm 2	60	7,500	All-year	Full	10 weeks	Abrupt	Abrupt
Farm 3	65	11,000	All-year	Partial	17 weeks	Gradual	Gradual
Farm 4	50	6,000	All-year	Combination	16 weeks	Abrupt	Abrupt
Farm 5	45	7,000	All-year	Combination	10 weeks	Gradual	Gradual
Germany							
Farm 1	30	4,000	All-year	Full	14 weeks	Gradual	Abrupt
Farm 2	50	5,200	Spring	Full	15 weeks	Abrupt	Abrupt
Denmark							
Farm 1	250	12,200	All-year	Full	2 weeks	?	Abrupt
Averages as ass	essed by the fo	rmer. **Ave	rage for female	es is shown when di			a

