

### EP 3: Hints & tips on managing cow-calf contact systems

**Laura Rice says:** Welcome to the Care4Dairy podcast series. I'm Laura Rice. Care4Dairy has developed best practice guides to support the welfare of dairy calves, heifers, cows, and end of career animals. The guidelines consist of a series of fact sheets on key topics, some of which are discussed in the podcast series.

**Laura Rice continues:** The project is farmer-centered and benefited from involvement of stakeholders from farming and veterinary organisations, as well as academia. There are four Care4Dairy podcasts, each looking at the different stages. In each episode of this series, I'll be joined by two guests, a representative from Care4Dairy, and either a farmer, farm advisor, or a veterinarian.

**Laura Rice continues:** Today we are discussing hints and tips on managing cow-calf contact systems, and I am joined by Professor Sigrid Agenäs in Sweden and our Care4Dairy representative, Professor Siobhan Mullan, a veterinarian in the School of Veterinary Medicine in UCD, Ireland. Thank you both for joining me today.

Sigrid, you are a professor in SLU. Can you tell me more about this role and what it involves for you?

**Sigrid Agenäs answers:** Yes, I'm responsible for the subject of management of ruminants. And I'm an animal scientist with a background in lactation physiology that has taken me into different areas of the lactating cow, including the cow-calf contact.

**Laura Rice asks:** And Siobhan, you moved away from veterinary surgery and towards research. What sparked this change and how did you get involved with Care4Dairy?

**Siobhan Mullan answers:** I guess it was a very gradual change, I started to just do more research and reduce my clinical work and I found that I really loved the research, particularly looking at the bigger picture and some of those fundamental questions. My research has always been really focused on how to drive animal welfare improvements through the work that we do. So it felt like a natural extension, but just on a larger scale than we do as veterinarians.

**Laura Rice says:** We're here to talk about the hints and tips on managing cow-calf contact systems.

Siobhan, what is the rationale behind Care4Dairy's recommendations to keep calves with either their dam or a foster cow for 24 hours, and ideally until gradual weaning starting sometime around eight weeks?

**Siobhan Mullan explains:** We took a rigorous evidence-based approach to how we drafted the Care4Dairy guidance. I guess we did three things. First of all, we reviewed the scientific literature on this, which is growing quite rapidly at the moment. We also looked at existing farm guidelines on these topics. And finally, we incorporated practical feedback from farmers in all member states and various farming and veterinary and other organisations.

**Siobhan Mullan continues:** It was a combination of those things that gave us the platform to make these recommendations. And we were really clear that the science is strongly showing that keeping cows and calves together has got many benefits both in terms of calf growth and behaviour and welfare overall for both cows and calves.

**Siobhan Mullan continues:** But we know that it is currently not commonly practiced. And so, Care4Dairy offered two different levels of good practice and best practice. And we really considered that farmers would need to most likely make some changes to be able to implement this.

**Laura Rice asks:** And what are the different ways that farmers implement cow-calf contact Sigrid?

**Sigrid Agenäs responds:** There are as many solutions as there are farmers and that's because this movement has been driven by individual farmers. There hasn't been like an academic or industry drive. What Siobhan just said to start identifying good practice is still very new. Across Europe there are farms doing anything from full contact for 10 or 11 months to extended contact just a bit beyond the early separation, we have half-time or full-time systems and we have dam rearing and foster rearing. This shows how many solutions there can be and at this point I think many of them work for the individual farm but it's difficult based on the field data to identify why some things work and didn't work on one farm and if that's general to other farms.

**Laura Rice asks:** Sigrid based on your research, what have been the main benefits of cow-calf contact systems for both the cows and calves?

**Sigrid Agenäs explains:** For the animals, I would say a richer daily life. If we see the calves as enrichment for their dams and just to be in a group from the calf perspective compared to being a dairy calf separated and raised in a single cubicle or single pen. It's a lot richer environment, more things that happen each day, more animals to develop with and meet while they're growing up. And then, in our project, the calves have been very healthy and we think we may also be seeing a really good health profile in the cows. However, we have data for just over a hundred cow-calf pairs now. That's quite a lot from a controlled science point of view, but not compared to the bulk of evidence that we have on conventional dairy farming across the world with all the recording data and health data and such. But we haven't had health problems in the dam cows. We have had a few who tested positive for *Staph. aureus* mastitis, which we have occurring in our herd, and we have to remove them because of the risk that it transmits to other cows in our group.

**Sigrid Agenäs continues:** But other than that, the cows have been doing well. The calves get the viruses that you would expect from a maturing mammal. They can come down with coughing and with diarrhea, but we haven't seen calves that need treatment. We've treated 1 or 2 pneumonias, but other than that the calves can be poorly for about 24 hours and then they recover and eat and play again, even if they may still have some wet stool or a bit of a cough.

**Sigrid Agenäs continues:** So, from the Swedish perspective, where we really try to hold back on antibiotics, the antibiotics used for dairy is not an insignificant share that goes to the

calves. And as far as our data is looking now, this has a potential to decrease the need for treatment.

**Laura Rice says:** That's certainly a massive benefit really, isn't it?

There is a Care4Dairy decision tree to help farmers decide if this management system might work for them, Siobhan. How was this designed and what are the most important aspects for farmers to consider?

**Siobhan Mullan answers:** Yes, the decision tree was made specifically to try and help farmers think about how to implement what might potentially be a new system for some farmers. It helps farmers in considering the type of farm they have, whether they are set up to be able to provide longer cow-calf contact and if not, then how to manage just the 24 hours with the cows and calves together. And it helps farmers think about some alternatives as well, whether they've got, for example, opportunities for fostering some calves onto cows as opposed to being with their own dam.

**Laura Rice asks:** And Sigrid, you've worked with many farmers who have implemented a cow-calf contact system. What do they say about adopting this practice?

**Sigrid Agenäs answers:** Most of the farmers I've met, once they've tried it, they're keen to continue, even if they've tried under some kind of scheme, like a research project where they can get some reimbursement.

But those that don't continue, they've either had cow health problems, so other health problems, mainly, which we haven't seen, so I don't know, there may be so many different reasons for that. I also have talked to farmers who have been disappointed with the heifers that were born into the system, how they produce in their first lactation. That's a bit scary, maybe. We haven't got the full set of data on our daughters that are born in the system on our research farm yet, but that's in the pipeline to be evaluated this year. The hypotheses are of course that the heifers that grow that much better as young calves may have advantages that carries through to adult age that they enter their first lactation with a higher body weight and a higher, amount of the total growth done and so on.

**Sigrid Agenäs continues:** But there may also be other issues with growing or maturing at a higher body condition. For example some of these heifers get quite fat growing on their dams. And that could have some competition or create some disturbances in the mammogenesis that needs to happen before puberty.

So that's one reason and health problems in the cows would be the other. And then the third sort of obstacle is how to design the weaning and separation that some just think it doesn't work well enough to be worth the contact time if the animals then really struggle at separation.

**Laura Rice asks:** And one of the aspects of cow-calf contact the farmers may be nervous about is weaning. Have you seen farmers successfully managing this in practice?

**Sigrid Agenäs explains:** I think the success of weaning is a bit in the eye of the beholder. This is something that goes into our own ethics and an interpretation of the animal situation.

For someone who really doesn't like to see, and I would say it's primarily the cows, you don't like to see your cows in distress, then they will struggle to find a way to wean where the animals are stress-free. At least we haven't come up with it. We've tried different intervention systems and there is at least three-day period where the animals are vocalizing more. You can also consider that it's a stage that they need to go through. The calves are big, and the cows are not fresh cows into a new lactation, and it's a few days when they're a bit upset and then they are fine. People try their different ways and then I think it's down to how you interpret the expressions in the animals. It's difficult also to say from a strict science point of view what is worse? to never get to know each other or to get to know each other and then be separated? We can't really measure those two entities against each other.

**Laura Rice asks:** Overall, what are the key success factors for cow-calf contact systems?

**Sigrid Agenäs answers:** For us, we've worked with automatic milking systems, and it is to get the cow traffic to work, to find a way to lay out resources, so that cows keep moving in the system as they need to do. We're very pleased with the way it works in our setup and we also know farmers with automatic systems that have a really nice design.

And then of course it's things like how to manage the cleanliness in the area where cows and calves are together. Because that would normally be a cubicle area, cubicles are built based on cow size, and when the calves enter the cubicles, they can mess them up in the wrong area. You need to work out how to make that work well on a daily basis.

**Sigrid Agenäs continues:** And then it's also that everyone working with the animals need to be on board. I would say that that's the main factor. I will hesitate or need to be strongly proven wrong when I say that I won't advocate that this should be a law or a requirement in a certification or such that makes farmers feel pushed to try cow-calf contact because it's easy to fail if you want to. But farmers who really want to do this and come at it from their own motivation, it's also very possible to make it work well.

We saw in our herd staff at the research farm, some serious concerns for personal safety when we started this project, to a point where people said, "I'm a parent, I can't risk my own safety at work." And I realized that the more I argued for this fantastic project, the more reluctant the staff became to a point where I thought that I'm not going to be able to negotiate with them about this.

**Sigrid Agenäs continues:** So, I realized they had to see what I had seen. They had to go and visit at least one farm - where this worked, and we were very fortunate to be able to set that up with the Finlay farm in Scotland. So, everyone on the barn staff who wanted to, got to go on a trip to Scotland and work side by side with their staff for a couple of days. And those who did, there were six of them, they came back and said, "we can do this easily, no problem."

And so, I think again, with so many other farming changes, that if you have seen it yourself and you make your mind up, then you're going to make it work. But if someone else tells you that what you've done for generations is wrong, and now you need to do it this way. You can do that with a diet, and you can probably do it with medication, but with management, which is what everyone does with their animals every day, the farmer and their staff need to be invested and motivated to do this.

**Laura Rice asks:** And do you think showing them, to address their concerns will encourage farmers to do this?

**Sigrid Agenäs answers:** I think it will, at least that's one hurdle less and we've seen in our herd. We made the decision early on to never push cow and calf away from each other. For example, if I want a blood sample from a calf and it's interacting head-to-head with its dam, then I just wait until they're done, and they go separate ways and then I do my sample. By doing this, and also having animals in a voluntary milking system so we never round them up for milking or anything, makes it really relaxed for us when we enter the herd. We can walk around with them, and they come up to say hi, and it's very quiet. While if you do it in a parlour milking herd where the animals are used to a person coming in, means we need to move away. I think that increases the risk of animals being a bit stressed, and as you know, when a dam is stressed, or when she sees her calf getting stressed, that's when she can become dangerous to handle. So, we've just made those conscious decisions and we have the luxury to do that. We're a university herd, and it's no one's individual, personal business. But again I see farmers who really want to do this, who also succeed really well. They find their way to work around the animals and with the animals instead of saying, no, all the animals need to be here and there because it suits the schedule of the people.

**Laura Rice asks:** I suppose less stressed cows is better for everyone, isn't it?

**Sigrid Agenäs answers:** It's actually lovely. And that's also our experience when we've hosted visitors in our setup that even those who come with all the 'ifs' and 'buts' and then they enter the herd and they say "this doesn't look complicated at all" and it's almost to the point where you don't really know what to show them. It's like there's the cows, the robot, the calves, and it works, and the people say "yes it seems to work" and then it's not so tense anymore. So I think those of us who've had the chance to see these systems for a while need to have patience and allow others to make up their mind and also give them room to voice their concerns, because I feel I learn a lot, if I bring an experienced cow person into the barn and they see something that I didn't think of, I think that's great if they can then ask me or tell me. If I campaign for it too much, then I'm afraid I won't get those insights and inputs from people.

**Laura Rice says:** We've discussed the importance of health status of the herd and the herd management regarding social adaptability. Another note of importance is looking after the cow as they do so much of the care and ensuring cows have the right nutrition, environment, and healthcare and less stress. Is there anything else either of you would like to add to this?

**Siobhan Mullan answers:** I would just like to emphasize again that we've seen this huge diversity and farmers at the moment are really driving this and they're finding the way that suits their farm. We didn't want to be prescriptive in any way about how farmers should find the solutions for their farm, because they're the best people, who know their farm best, who know their cows, and they will find the solutions if they are keen to do so.

**Laura Rice summarises:** Thank you so much. And that's really all we have time for on this episode. Thank you to my guests Professor Sigrid Agenäs from SLU in Sweden and Professor Siobhan Mullan from UCD.



**Laura Rice continues:** Thank you for listening. For more information, visit the Care4Dairy website, [www.care4dairy.eu](http://www.care4dairy.eu). Where you can find more information on this podcast topic, the other podcast in the series, best practice guides and fact sheets on the welfare of dairy, calves, heifers, cows, and end of career animals. My name is Laura Rice.

Thank you for listening.