Sanitation key to curing salmonella-infected calves

Plastic tubes used in milk delivery can spread bacteria

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Well, I went back to that large dairy farm that I wrote about last month exactly two weeks after my first visit as I’d planned. On the second visit, we discovered the farmer had misdiagnosed. He thought his calves had pneumonia but they had salmonellosis.

So, we worked out a few actions that needed to be done after the first visit.

There is never enough labour or time on a dairy farm, so not everything got done. It is always a good idea to prioritize the list of things that need to be done. In this case, it would have been tough because good sanitation depends on all its components working together.

The farm had done a great job of cleaning the entire milk pasteurization, milk storage and milk delivery system but hadn’t yet replaced the plastic tubes used in the milk delivery. Those tubes are so hard to clean effectively that some experts recommend replacing them every two weeks, especially if there are health issues amongst the calves being fed from the tubes.

The attention to sanitation paid off. The youngest calves, the ones born since the feeding changes, were healthier. Some of the older calves were still suffering, especially calves that had been recently weaned and moved from the hutches to group housing. Those calves were coming down with diarrhea again. Salmonella sometimes works like that. It takes advantage of stress and feeding changes to make calves sick again.

Shortly after I’d first visited the farm, we got some of the lab test results too. It turned out that the type of salmonella on the farm was salmonella dublin. This particular bacterium is relatively rare in Canada but is quite important. It is much more invasive than many other salmonella bacteria, meaning that it more easily spreads through the blood in calves. The same can happen in people so it is a very serious concern for anyone working with the calves. As well as diarrhea, it can cause abortion in cows, including abortion storms.

Salmonella dublin not only causes more serious disease, it can be carried by infected cattle for long periods of time. Infected calves can shed it in their manure for up to 10 weeks after they recover. If they are sold, they can carry the infection to different farms. It isn’t easy to figure out if calves or adult cattle are carrying salmonella dublin. Once a cow or calf sheds the bacteria into the environment, the bacteria can survive there for months. This potential that the bacteria can cause long-term contamination of the environment is one reason why sanitation is so important.

One of the other important features of salmonella dublin is that it is often resistant to treatment with antibiotics. This often makes it very difficult to treat cattle and people. It also makes it very important to emphasize prevention instead of relying on treatment.

Hopefully, the management and sanitation changes that were made on this farm will effectively prevent spread. I’ll keep you posted on what happens.

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