

Grasp the nettle, assess the risks and get a handle on Johne's control

Johne's – a hidden giant

NML and milk buyers are offering producers a 30-cow milk test screening service for Johne's disease. It's a great starting point in identifying the prevalence and risk of spread of the disease within the herd and slowing down this potential hidden giant.

text **Karen Wright**

Johne's disease has always been around in dairy herds but it never presented the problems or risks that it does today. Farming systems and the expansion of herds have contributed to this. More cattle are now bought in and the days of cows having their own 'maternity suite'

and feeding their own calf for a few days have long gone. The introduction of cattle of unknown health status, shared calving pens and pooled colostrums are the main risk areas for Johne's. The impact of Johne's can quietly eat away at herd performance. NML has



Steve West: "Herdwise data shows Johne's cows consistently under-performing"

analysed two years of results from its Herdwise screening service. Animals affected by Johne's have been compared alongside their contemporaries across subsequent lactations.

Lower milk yields

"We've looked at the performance of 18 Herdwise herds – 3,000 cows – that have been screened for Johne's," says Steve West, NML Healthcheck manager. "The cows affected with Johne's – that showed high levels of antibodies in their milk samples – had significantly lower yields than cows with medium or low Johne's infections even before it was obvious that they were affected by Johne's. When we looked at these cows' performance in earlier lactations their yields were consistently lower."

Average milk yields within a lactation are analysed for each Johne's antibody status group. These are shown in Figure 1. Those with no antibodies in repeated milk tests (low risk – classified 'J0') have the highest milk yield in each lactation compared with J5 cows – those with high antibody counts in two or more consecutive tests and classified as high risk 'red' cows. These cows have, consistently, the lowest average milk yield.

"The same trend is found in lifetime daily yields and average somatic cell counts," adds Mr West. "And when we look at each 'red' cow's history, she is consistently under-performing which suggests that the losses incurred through Johne's are happening well before the disease is detected."

He points out that this data is just a snapshot. "It's a preliminary study, but I believe that it is indicative of the



The impact of Johne's can quietly eat away at herd performance

Screening nips a potential problem in the bud

A recent 30-cow screening test picked up one cow with high levels of Johne's antibodies and one with very low levels in Devon producer Martin Elston's 170-cow herd. "It was a surprise as the herd has been closed for 10 years," says Martin who farms with his wife and parents at Meshaw, South Molton.

"We worked with our vet Dick Sibley to pull out the 30 cows to screen – with slightly lower yields and cell counts higher than the rest of the herd. This wasn't easy as there's not too much variation in the herd. We were surprised to find a reactor."

Herd health is important in this herd. There's no leptospirosis or BVD and the average cell count is 160,000/ml. Cows are not unduly 'pushed'. They are milked twice a day, housed in winter and graze during the summer. Average yield is 7,900kg.

"The whole exercise made us aware of the 'lurking' potential problem in our herd. We will be repeating the screening test in six months time. And we will test the bull we bought in three years ago annually although he was fully disease tested at the time of purchase."

Problems now unlikely

Dick Sibley explains that, having used the 30-cow screen and identified a potential problem early, this herd is very unlikely, with its current system, to have a long term Johne's problem. "If Martin had let the one cow – which is 10 years old and a good yielder, go undetected then there was the potential for half the herd to be affected in five years."



Martin Elston: "Now aware of lurking problems"

"A Myhealthyherd risk assessment was completed as part of the Healthy Livestock Johne's programme showed that although there's a very low risk of disease entry on this farm there's a high risk of disease spread. This is because, like many herds, limited calving boxes with multiple use are in operation and they feed waste milk to calves. So a cow shedding Johne's organisms in her milk can cause havoc."

And Mr Sibley admits that it's just as important to screen a low risk herd and keep it under surveillance as it is one with higher levels of infection.

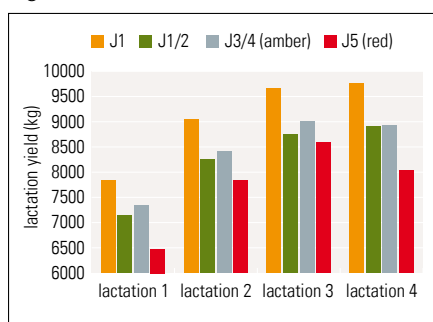
"At the moment it looks as though Martin has an isolated case and this cow has just been confirmed not in calf so she will be culled. But we will select the next group of 30 cows to screen very carefully. It will include her three daughters and calves born just after them that may have shared the calving box – we can pick these animals from the NMR records.

"We will then get a full picture of the problem or lack of problem and from there we can bring in control measures if necessary. Catching a small problem before it becomes a big problem is key to Johne's prevention and control."

consequences of Johne's disease in dairy herds and it is in line with European data."

The trends emerging from Herdwise and the clinical and sub-clinical results

Figure 1: Average yield (305 days) for high med and low infection cows



seen on farm are sufficient to encourage producers to take Johne's very seriously. "There's no doubt that taking measures to control the disease, which need not be very costly, will pay hands down in the short and long term."

Herdwise is based on the Danish service that, despite being voluntary, routinely screens 40% of the country's dairy cows. Having been operating for five years, their producers are very clear of the advantages.

No 'quick fix'

Working with NML, Milk Link among other major milk buyers, has been encouraging producers to take part in a 30-cow screening for Johne's.

"I've seen herds where Johne's has

caused devastation," says Milk Link technical manager Paul Charlton. "Sadly, a quick glance won't identify the problem. It's a case of digging deep and routine surveillance.

"The 30-cow Johne's screen appears to be very effective in finding the disease providing the correct 30 cows are selected. Producers need to work closely with their vets to review the risks of infection entering the herd (biosecurity) and spreading within the herd (biocontainment), and to work out a control plan specific to the farm.

"And at the same time, we want to support our suppliers through what can be challenging times. We are looking to create small local support groups." |