

Revealing results prompt rigorous approach to disease control

Johne's: what's the risk?

Assessing your herd's Johne's risk forms the basis of an effective control plan. We spoke to a vet and a producer to find out how they are tackling the disease and reaping both the health and production rewards.

text **Karen Bond**

Making the decision to embark on Johne's disease control can be a difficult one, particularly on a farm with little current evidence of a problem. Yet this was exactly the situation that Adam Ball found himself in autumn 2013, when his vet suggested he should look to be more proactive about Johne's.

"Adam had carried out a couple of processor-sponsored screens and found no positives, but I was concerned that there could be a problem lurking in the herd," says Adam's vet Gillian Whitehurst, of Glenthorne Vets. "So I encouraged whole herd testing to establish exactly where we were, but Adam wasn't sure there was any need given his previous results."

To help make the decision, a comprehensive risk assessment was carried out at Spod Farm, based near Alton in Staffordshire, using the My Healthy Herd programme. This revealed

that the risk of both bringing Johne's onto the farm and it spreading through the herd were high across the board. Even though Adam had not seen any positives on his previous screens he was at high risk of Johne's becoming a problem.

Wake-up call

"The risk assessment was a real wake up call for us," says Adam, "We thought that we didn't need to worry about Johne's. But this assessment flagged up a lot of management practices on the farm that would spread the disease."

"Being able to demonstrate to Adam, through the risk assessment, that his farm was high risk for Johne's really helped him to make the decision, despite the low milk price at the time, to test the whole herd for 12 months," adds Gillian. "And it's a decision he certainly hasn't regretted."

The testing, using NMR's HerdWise service, revealed only one repeatedly positive, or 'red' cow during the next 12 months, but this could just be the tip of the iceberg, according to Gillian. "Even though there was only the one red cow at the start, due to the management practices in place we were likely to see more positives coming through during the next couple of years because they had been infected before we had started to manage the disease."

"What we really want to see are very few new calves becoming infected after the implementation of the Johne's management plan. The HerdWise cohort monitor is really useful here because you can see the pattern of when positive cows were born, rather than just when they became positive."

Getting the whole farm team on board to tackle Johne's is crucial and support from the farm vet is also vital to ensure the right decisions are made and the farm is not overwhelmed by what can seem to be a daunting task. There is no 'one size fits all' approach to managing Johne's, so veterinary advice to make sure the plan is appropriate and robust, and also to manage expectations and timescales, is essential to the success of the process.

Key areas

Working together, Adam and Gillian identified key areas for change:

- Quarterly testing continued with red tagging of positive animals and the HerdWise report is displayed in the office for all staff to see along with the control plan.
- A plan to cull cows with two consecutive positive results as soon as possible, ideally within three months.
- All positives were bred to a terminal sire and calved separately. There was insufficient dry cow accommodation to separate them at that stage, so there was a big focus on stocking levels and extra bedding to maintain cleanliness.
- Replacement heifers all fed milk powder and colostrum was only fed 'mother to own calf'. Some colostrum is harvested from 'green' cows to be used on calves born to 'red' cows.
- Sick cows were not allowed in the dry cow accommodation.

Using Gillian's knowledge and experience, Adam has put in place effective measures to tackle Johne's disease





Using the My Healthy Herd software, the risk assessment from October 2013 (left) shows 'red' risks of spread in all categories. Now, in 2018, the changes in management practices have reduced those risks to 'green' and 'amber' (right)

"Uptake of the plan was good," says Adam. "Everyone wanted to get involved, and while we knew it wasn't perfect, we felt we were doing a good job."

Despite the farm team's hard work, Gillian soon saw a flaw in the plan. "High risk cows were not being culled within three months of diagnosis and Adam confirmed that he was holding onto them until they started to look ill or scour. I felt that this was a big issue, particularly due to the lack of total segregation up to calving."

To demonstrate the issue, she decided to take a faecal sample from a high risk cow and have it tested for the bacteria. "I told Adam that, despite her looking fine, she posed a risk to his farm as she was shedding the bacteria. We agreed that if the faecal test came back positive he would cull her straight away and if it was negative I wouldn't charge him for the test."

The cow in question was number 906,

pictured below. She had been consistently positive on the HerdWise test for two years, but she was a condition score 4 and not scouring. In March 2017 she was dried off early as her milk had dropped off and came back positive on faecal PCR in May 2017.

Infectious animal

"When the result came back I was shocked," admits Adam. "Gillian asked me whether I was happy to have this cow walking round the farm spreading infectious material that could potentially survive for up to a year. Of course when you put it like that the answer is obviously 'no' and 906 left the farm the next day to be culled."

This set in motion a big shift in mindset on the farm about culling positive cows. InterHerd is now used to highlight any production issues in those positive cows and make the decision to cull. "I've noticed that a lot of the positives make

their own way onto my culling list and this has given me more confidence to cull sooner," says Adam.

A recent plan review, including a whole team farm walk, shows that things have moved on yet again. There is a new dry cow shed allowing total segregation of 'positives' from the point of drying off; and using InterHerd+ data, Gillian has provided a list of heifers born to positive dams that will be identified and fattened rather than being retained for breeding.

Adam is glad that he took Gillian's advice and tackled Johne's.

"In hindsight it was a much bigger problem than we initially thought. We worked out practical solutions to the problem and now feel much more on top of the problem. And with Johne's contributing, as it did, to the cull rate, we're confident we made the right decision for improvement in long-term herd performance. |

Despite looking healthy, cow 906 was consistently positive on milk tests and shedding bacteria

