

Disease is threat to dairy industry – not just herd performance

Incentives to put a lid on Johnne's threat

'Guilty' unless proven 'low risk' – that's how producers and the industry should view the status of Johnne's disease in dairy herds. Milk buyers are adding their weight to surveillance and control incentives. It's not a marketing ploy but a realisation that Johnne's disease is a real threat to the UK dairy industry and it hits cow performance hard.

text Karen Wright

"Once you have cows with Johnne's there's no easy remedy," says Gloucestershire-based vet David Preece from Tyndale Vets, which is part of the XL Vet group. "If you find you have some with IBR or BVD then I can help, but there's no way of getting rid of Johnne's from an infected cow. The only solution is to cull her or to manage her and any other infected Johnne's cows separately to minimise the risk of infection of others in the herd." Johnne's isn't a new disease but the proportion of herds known to be affected has increased. More cattle movement due to restocking or expansion has, in effect, spread infected cows among more herds. If one infected herd with 30 Johnne's cows sold 20 of them to 10 herds, this would result in 11 affected herds. "This has certainly happened in this area," adds David. "Some have restocked after a TB outbreak and others have expanded by purchasing animals. We haven't a truly closed dairy herd on our books now."

Demand information

In the light of this, he urges any producer buying in stock to demand official Johnne's surveillance records. "The information available on Johnne's control from many vendors and their vets is totally inadequate," he adds. "If more vets and producers demanded the information the situation would improve – cows with proper disease

records should be worth more. A herd buying in Johnne's and becoming severely affected can spend 10 years sorting it out with a lot of cost and stress in the meantime." No better testimony to this is David's client Don Ingles, from Broadway in Worcestershire, who bought in 130 cows as part of a herd expansion programme back in 1998. Don, with his wife Sara who runs the calf and youngstock unit, took on the 80-cow Holstein herd at Hayway Farm and decided to increase numbers to 210.

Clinical cases

"I bought in-calf heifers in groups of between three and 40, all privately, all healthy and from what I thought were reputable sources," says Don, admitting that in hindsight he was naive. "It turned out to be a nightmare – 60% were affected with Johnne's and cows started going downhill often after their second or third calving. We had clinical cases and many had to be culled." When David Preece was called in to help he immediately implemented a list of protocols that included calving infected cows separately, snatching calves, feeding bought-in colostrum and milk powder and not feeding any dams' milk to calves. He also removed a previous vaccination policy that preceded his work on the farm. "It didn't provide us with any records or test results to identify



Disease discussions: Don Ingles (left) and vet David Preece

Johnne's affected cows. We didn't really know which of the cows testing positive for Johnne's antibodies were affected or had antibodies as a result of vaccination. This made the job very difficult," he explains. "The only thing we could do was to keep to the rigid husbandry routines for all the positive cows and monitor the herd regularly." They used their NMR milk recording samples to test for Johnne's on a routine basis. "This was far easier and cheaper than blood testing and we had regular and reliable results for each cow – this has to be the cornerstone of modern Johnne's control," adds David. A heavy culling programme meant numbers dropped to 120 cows at Hayway Farm, which didn't help the business. "We'd invested in a new building and improved facilities and that all came at a cost," says Don who adds that ten years down the line, they have virtually no positive test results, milk yields are up from 6,500kg to 10,000kg and they are up to 190 cows with some good heifers in the pipeline.

Herd productivity

Controlling Johnne's, along with improvements in other areas, has helped to boost herd productivity. Cows are now housed all year round and biosecurity is as tight as possible on the 160-hectare unit. Don believes that reducing Johnne's has

helped fertility with the calving interval dropping to 400 days in this year-round calving herd. "Cows are healthier and calving to conception rates are far better than five or six years ago. "Cows have to be healthy to be producing this level of milk and to get in calf with few health problems."

But there's no room for complacency. "Protocols are now all part of our routine – we won't take any risks," he adds. NMR Herdwise quarterly testing will continue and, with results being fed directly into InterHerd, David can follow trends and monitor progress accurately. "I would not relax this for the foreseeable future," adds David. "While the herd

might almost be Johnne's free now and Don isn't buying in any cattle, if he wants to demonstrate his status or sell stock he can stand beside his Herdwise results. He's got three or four years' worth of data to support his status. It would be good to see a lot more producers in this position." I

Housed herd: cows stay inside all year round and biosecurity is as tight as possible



Big gains from less Johnne's

A survey of 53 Herdwise users, who had screened at least 50% of their herd for Johnne's on a quarterly basis for at least three years, shows that Johnne's has an association with productivity and fertility. Herds were categorised depending on the percentage of cows within the herd with Johnne's positive ELISA tests. Those herds with fewer than 7% 'positive' cows were categorised as low, 7% to 25%

were categorised as medium and herds with 25% or more positive cows were categorised as high. Heifers in high Johnne's prevalence herds had a higher average age at first calving. High prevalence herds also had significantly lower milk production than lower prevalence herds. The survey was able to select a group of 29 herds with similar lactation ages, which helped to eliminate the effect of a

higher proportion of higher prevalence cows in later lactations. The high prevalence herds in this group yielded 2kg per cow per day less across their lifetime. The survey also looked at the financial loss for a herd with 30% positive Johnne's cows compared with 6% positive cows. It found a milk yield difference of 1,356kg per cow per year or, based on a milk price of 25ppl, £33,900 for a 100-cow herd.