

Planned approach to mastitis control pays off

Enough is enough

Unacceptably high levels of mastitis were the trigger for adopting a structured control plan to tackle the problem – once and for all – on one Devon-based unit. And it's an approach that's paying considerable dividends, just 12 months down the line.

text **Ann Hardy and Karen Wright**



Like any producer whose herd is experiencing between 75 and 80 cases of mastitis per 100 cows per year, James Frankpitt knew he had to tackle the problem. Returning home from university in 2009, to Rix Farm in Tiverton in Devon, responsibility for running the dairy was handed to him, while his father and brothers concentrated on other enterprises on the family's substantial tenanted holding.

"We had worked on it for years," says James. "But we'd never really got to the root of the problem, and the situation had just rumbled on."

Health problems were exacerbated as the herd continued to gradually expand increasing from 180 to 300 milkers during a six-year period, putting pressure on the business to find additional space for the rising head count.

Farm data

Cattle were squeezed into every available building, many of which were traditional sheds in the farm's 19th century courtyard, and most were deep-litter bedded on straw.

It was the lack of a structured approach to tackle mastitis that finally led the herd's vet Andy Biggs, from the Vale Group, to suggest the DairyCo Mastitis Control Plan, which James and his family were happy to take on board.

The process began with an in-depth analysis of farm data from NMR milk records and clinical case records in Interherd and Interherd+, along with a detailed questionnaire and farm observations.

After veterinary interpretation by Andy, an initial report was produced for the farm that prioritised areas to target.

"This process not only identifies the main origin of the problem, but it also helps to prioritise how it should be addressed," says Andy.

"For Rix Farm, the dry period was highlighted as the origin of most cases, while bacteriology, dominated by *Strep uberis*, also confirmed this to be the case."

Stocking density

James and the team responded by taking every measure possible to relieve pressure on dry cows and heifers – as both groups were seeing mastitis cases within less than a month of calving.

"In the summer we put the far-off dry cows out to grass and when they had to be housed, we rented a neighbour's building," says James. "This could be stocked less densely than our own and was also far easier to keep clean."

Housing for cows at calving was also improved, with calving boxes provided that were both cleaner and more comfortable.

At the same time, the drying off routine was revised. Dry cow tubes were changed to target *Strep uberis*, rather than *Staph aureus*, and problem cows were given longer acting products. Teat sealant was used on every cow and a far more hygienic routine was put in place.

"The cows for drying off now come back into the parlour after milking and they're cleaned with surgical spirit and cotton wool.

"Tubes are inserted 'by the book' – with clean and gloved hands – and they're sprayed afterwards," says James.

A problem identified with the milking parlour was also resolved and gradually the measures taken started to pay off.

"Within a year, the 75 to 80 mastitis

cases had declined to 44, and now we're currently running at 28 cases per 100 cows per year," says James.

"Antibiotic use has also declined more than pro rata as the fewer cases now being dealt with tend to be easier to cure."

The impact this improvement has had on the farm, in terms of its bottom line and morale, has been profound.

"The team has worked hard to get these improvements and has had an uphill battle in some of the older buildings," says Andy.

James' new-found confidence led on to his proposal to build a new dry cow shed, which he has been able to justify to his family on the strength of results so far achieved.

Continued improvement

"The shed is modern and light and airy with plenty of access to feed and water with comfortable, sand-bedded cubicles," he says. "We're confident this and other measures – including the introduction of three-times-a-day milking – will continue to improve mastitis levels, as well as drive up production this winter from 9,600 litres towards 10,000 litres."

But the shed is just one step in a much longer journey, which Andy says will be on-going as the DairyCo Mastitis Control Plan continues.

"We've identified one pinch-point and that has now been addressed," he says.

"Now we'll move on to the next area of greatest return. The plan provides the framework for the classic 'measure, manage and monitor' approach and it's important that the situation is regularly reviewed."

James has no hesitation in continuing

New shed: improved cow housing, with sand-bedded cubicles, has played a key role in reducing the incidence of mastitis



No holding back on mastitis details

Taking a simple step and logging clinical mastitis will allow big strides in udder health improvements

Don't blame the milk recorder, but instead improve access to clinical mastitis data and make better use of it. That is Devon-based vet Andy Biggs' message to producers and his vet colleagues. "How is the milk recorder meant to collect details of mastitis cases and treatment when every tube used for every cow is written in the farm diary and all jumbled up with other herd information?"

Beneficial data

While encouraging producers to keep better mastitis records, Mr Biggs also lays some of the responsibility at the feet of fellow vets. "How many vets have really explained to their clients just how beneficial this data could be? "Logging mastitis cases with milk records, that already hold calving dates, stage of lactation and lactation number, we can quickly see the number of mastitis cases and when they are mainly occurring. This really starts directing us towards the root cause of the problem."

He points out that if the data shows that the majority of clinical cases are occurring in early lactation then the problems are likely to have originated in the dry period and so the dry, transition or calving cows are the areas to look at. If cases are occurring mainly in mid and late lactation the problems

are likely to be 'lactation origin' and so the key areas to look at are any problem high cell count cows, the parlour and milking routine, housing and the cow's environment.

"This lack of readily available and complete clinical mastitis data is the scenario on around 80% of dairy farms and it's a worldwide problem," he adds. Having just returned from an overseas seminar he can see that the lack of clinical mastitis recording – both current and historic – is holding back progress in cow health in many dairy producing countries.

"Many producers seem to resist adding this data to the milk records or they don't really understand its importance. We need a change in mindset from both producers and their vets. It might seem obvious, but just with this little bit of extra information many herds could propel themselves into much higher levels of mastitis management. And it wouldn't cost any more or take any more time, but it would be a worthwhile discipline."

Specific column

To this end, Mr Biggs has been working with NMR to improve clinical mastitis management in its 2014 Herd Management Diary. A specific column is dedicated to recording the first treatment of any clinical case of mastitis treated.

"All the producer has to do is put a cross in one of the four boxes and write the



Data detail: clinical mastitis recording is vital to tackle the disease

cow's line number alongside. The recorder looks in one place and picks up the information, adds it to the records and it then gets included in the monthly report. Over time, we can pick up the frequency and timing of cases. We can do a great deal with this information."

A dairy mastitis guru, Mr Biggs carries out workshops for vets and producers around the country and uses local herds as case studies. "All too often we struggle to find a herd with mastitis problems with good records – we find that those we have used historically tend to improve and we have to find another herd to use at the workshops. So the value of decent record keeping for clinical mastitis speaks for itself."

with the process and believes mastitis on the farm can drop below 20 cases per 100 cows per year. Equally, he says he would not have had the confidence to make the

changes he has made without the support the DairyCo Mastitis Control Plan gave, despite having an earlier idea of where the problems lay. "That's not uncommon on any farm," says Andy.

"They have to have the plan to get past the problem, and that means identifying priorities that will bring the greatest returns, and not just facing a long list that is too daunting from the outset." |

Working with vet Andy Biggs (right), and the DairyCo Mastitis Control Plan, has helped James Frankpitt to improve his herd's udder health

