

Routine testing steers hygiene advice and regimes

# Bug patrol improves hygiene plan

It makes sense. Check out the bacteria in the bulk milk, investigate activities on farm and modify the hygiene programme to target challenges. Putting this into practice and advocating routine surveillance of the raw milk is at the core of a new initiative from Deosan Farm Intelligence, Diversey's farm consulting service, and National Milk Laboratories (NML).

text **Karen Wright**

**“W**e’re encouraging more producers to follow routine surveillance of mastitis-causing pathogens on their bulk milk,” says Diversey – part of Sealed Air – technical hygiene specialist Alison Cox. “There are great benefits in getting regular results so we know what we’re dealing with at any one time. But there’s just as much benefit in building up a history of the unit so we have a picture of trends and patterns to support our advice on farm.” Diversey hygiene specialists are working closely with producers to interpret results both from PCR (polymerase chain reaction) tests that detect the DNA from a range of mastitis causing pathogens and Bacto-breakdown bulk milk samples to assess levels of specific plant hygiene pathogens.

“Routine bulk milk microbiology tests can identify a range of bacteria,” says NML director Ben Bartlett. “Some of these may be cause for concern or the root cause of a problem – or potential problem – while others are of little concern.

“It is important that this service is used alongside specialist advice where the hygiene specialist or vet, with the producer, can work out the best course of action.”

Mr Bartlett stresses the importance of careful interpretation of PCR and culture results. “We can see seasonal trends in certain pathogens and the hygiene and control measures that work at one time

of the year may not work at another time.

“For example, some bacteria don’t grow at low temperatures so in mid winter they are of little threat to the well-being of the unit. And some might thrive in high temperatures. Humidity can have an effect too as well as the management system, stocking rate and parlour layout.”

## Seasonal bugs

Alison Cox has seen at first hand this variation in mastitis causing pathogens. “Some bugs are more prevalent on some units and at certain times of the year,” she adds. “And this is why more formal surveillance testing and monitoring is beneficial. We can begin to identify seasonal trends and the influence of weather conditions so we can start to pre-empt potential problems.”

Mrs Cox sees value in a more accurate log of pathogens when it comes to recommending protocols and products on farm. “Regular information and a background of knowledge encourages more focused dialogue on farm and our aim is to convert this into cost effective operational changes and successful long term results. We can use the information to assess the risks and challenges to milk quality and udder health and target specific cost effective products as part of the hygiene control programme.”

Deosan Farm Intelligence incorporates NML’s bulk tank PCR Mastitis-ID, and



*Results from milk tests can be used to assess risks to udder health*



*Alison Cox: "Identifying bug trends means problems can be pre-empted"*



*Peter Strudwick: "Modifying our hygiene procedure with confidence"*

the more traditional Bacto-breakdown testing services. Results are sent back to the producer and the hygiene specialist to support investigations into herd udder health, teat condition and Bactoscan. "Although results are mere snapshots of the pathogens in the milk on the day of the test, the results can begin to map out targeted hygiene routines, particularly where bulk milk samples are monitored quarterly. "And it's very easy for producers to use this milk testing service as NML already collects bulk milk samples from the majority of UK farms for testing for payment purposes. These samples can be used for micro tests.

"We don't have to hassle the producer to take more samples and send them off to the lab – even the scheduling is built into the system. I think this will be a big contributor to the success of the service."

### **Early adopter**

An early adopter of the Farm Intelligence service is West Sussex producer Peter Strudwick. Peter farms 607 hectares with his brother and milks 175 Friesian cows, twice a day, through a 18:18 herringbone parlour. Cows are loose housed on straw yards.

Keen to maintain long term herd health and stay in the top quality band for his milk, the idea of routine 'bug' testing appealed to Peter. "We're busy here and so a test that can happen automatically and does not involve us taking extra samples is ideal, particularly as the results can accurately identify pathogens or pick up trends.

"With our Diversey hygiene consultant Steve Soffe we use the

results to fine-tune our dairy hygiene operations," he says.

Despite no obvious problems in udder health, the first PCR test results at Downs Farm confirmed environmental organisms including *Strep. uberis*. This led Peter and Steve to focus on the loose housing, bedding management and teat preparation.

"We made some changes that included treating the bedding with a drying bedding powder," adds Peter. "We also moved from a dual pre- and post-teat disinfectant to separate more specific pre- and post-formulations at milking time. And we made sure teats were disinfected, clean and dry before milking."

### **Quick improvements**

A high level biocide and emollient post milking combination in the Deosan Super Excel disinfectant was introduced after milking to rehydrate the teat skin and protect the udder from environmental challenges once the cow had returned to the accommodation.

"The tests have led to better identification of the bugs in the bulk milk. This has given us the confidence to modify our protocols and the products we are using and although we did not expect to see immediate changes to hygiene and udder health results, we have seen a quick improvement in teat cleanliness and skin condition, which can only be of benefit to long term udder health.

"Routine NML bulk milk testing and regular hygiene reviews has put us more in control of herd health and milk quality and, if any issues do arise, we get an early warning and can take action before there are any real problems." |