Dynamic 'wet' or 'on-load' parlour testing is key to optimising milking

Testing, testing... one, two, three

The cows, the parlour and the milking routine should all be scrutinised if a thorough plant check up – with useful results – is to be successfully carried out. So says one of the UK's most experienced milking machine testers.

text **Rachael Porter**

Static parlour testing is carried out on 98% of UK dairy units each year, yet just 2% currently also have an annual dynamic test. Yet it's the latter that really tells you if cows are being milked properly and the parlour is truly functioning as it should, according to Genus milking systems technical manager Mark Scrivens.

"The reason that the percentage of units carrying out an annual static test is so high is because all milking machines must have one each year to meet farm assurance criteria. Most schemes also advocate dynamic testing – and with good reason – but it's not compulsory at the moment. That said, I think it will become mandatory in the next two or three years."

Mr Scrivens, who has been a milking machine tester for more than 30 years, likens the static test to a MOT on a car: "It's a requirement, by law, to make sure that the car is safe to drive on the road. And the static parlour test will, indeed, test the safety of the parlour and ensure that all its component parts are in working order. But it won't tell you if it functions well at milking time."

Milk-let-down reflex

The dynamic 'wet' or 'on-load' test looks at every aspect of milking, through to washing out. It looks at the cows, the operators, the routine and the machine itself. "The machine can be perfect in the static test, but the dynamic test can show up all kinds of problems due to 'operator error' or an inadequate milking routine. Likewise, the machine can be in a poor state, but the dynamic test will highlight that the operators and the routine are extremely good," says Mr Scrivens.

He adds that a dynamic test really does highlight everything that's going on and can allow producers to identify milking 'weaknesses'.

"A classic example is operators stripping, wiping and then leaving cows for too long before attaching the clusters – that happens when they try to tackle a long row of cows in the parlour, rather than the recommended five or six at a time.

"By the time they reach the cow at the end of the row, the optimal time to attach clusters has passed. The milk-let-down reflex has been and gone. Attaching the cluster at that point puts a lot of strain on the udders and teat ends."

Udder health

Problems with 'over milking' can also occur if, again, the rows of cows being attended are too long for the operator to manage in a timely fashion.

"Maybe there are no ACRs or perhaps they are set incorrectly, which is more often the case," says Mr Scrivens. "They either come off too early or too late and this is something that a dynamic test will pick up."

The test literally examines what the cow experiences in the parlour and, for that reason, it's as important as the static test – some would argue that it's more important.

"When average milk yields were lower – say 20 years ago – dynamic testing would have been less relevant on many dairy units. But as milk yields, and the pressure on the parlour and the operator and the cow, have increased, the focus has definitely changed.

"Dynamic testing can help to safeguard teat-end condition and udder health. And if producers have a problem with either, the test can help them to identify what's causing it."

Mr Scrivens says that during the past 30 years he has never carried out a dynamic milking test that hasn't flagged up at least one thing that requires attention. "And in some ways that's a good thing, because it means that the test has been worthwhile and the producer can make changes and improvements."

Back to the ideal routine, he says that prepping a maximum of six cows at a time is vital. "Prepping too many cows in one go is the most common 'fail' we see. Oxytocin release, which facilitates milk let down, persists for 90 seconds after prepping. So the operator literally has 90 seconds to put the milking unit on. "Any longer and the oxytocin release has finished and milk won't flow easily."

And as for ACRs, Mr Scrivens says that many in the UK are designed to detach when milk flow is lower than 200ml per minute. "The problem is that, with modern Holsteins, that levels needs to be around 400ml per minute, to avoid over milking. Many parlours are set too low and are dragging milk out of the udder. Leaving clusters on for too long can cause serious teat-end damage and this can leave the cow prone to mastitis infection and push up her somatic cell count.

"Just an extra 30 seconds has the potential to cause problems. If you think of it as one minute a day, during a 305-lactation, that's 300 minutes of 'dry' milking the cow."

He says that he's seen parlours where the delay on the ACR is as much as five or six minutes. "And, when questioned about it, the producers just say 'they were installed like that'."

With so much attention to detail, the £300 or so spent for a dynamic milk test can be a great way for producers to check their parlour and routine is up to scratch. An in depth, unbiased report can aid trouble shooting and it's a great way to get milking staff motivated and on board.

Recommendation report

"It's not about pointing the finger of blame – more often than not the operators are absolved and actually proven to be extremely good at their job. And when we write up a report, post test, we make recommendations that are clear and easy to understand. We can also offer advice on how to implement any necessary changes," adds Mr Scrivens.

The price of dynamic testing is fixed at around £300, no matter what the parlour size. But the benefits to be had are often the same, no matter what the size and type of milking system in place. "And just preventing a handful of mastitis cases or preventing teat-end damage will soon see a return on the annual investment of £300.

"So it's a cost that is easy to justify, even in these difficult financial times. In fact, producers run the risk of huge losses if their milking plant isn't working or being operated correctly. When it comes to dynamic testing, I think it's more a case of can you afford not to." |