

Flushed with udder-health success

Tackling cross contamination in the milking parlour drives down cell counts

When a Cornish producer decided to increase herd size he found it also led to increased cell counts, but the problem was quickly solved following the installation of automated cluster flushing.

Read on to find out if it could be useful on your unit.

Two years ago Paul James took the decision to both double herd size and begin rearing his own herd replacements. But with the additional work load came increased cell counts.

Based at Goenrounsen Farm, Summercourt near Newquay, and farming in partnership with his wife Lyn, Paul decided it was time to expand his 160-cow flying herd and commit to dairying. "While we wanted to rear our own replacements we also wanted to expand the herd quickly so looked to buy in additional cows so we could see a rapid boost in the milk cheque.

"We've never looked to buy in highly expensive cows and to get numbers up quickly a good option looked to be some Guernsey and Ayrshire crosses. All cows and heifers are now bred to Swedish Red semen to get hybrid vigour."

All heifers are contract reared, allowing Paul to focus on the cows. The 360 all-year-round calving cows are now averaging 7,000 litres at 4.65% butterfat and 3.50% protein.

Milk hygiene quality had always been good with cell counts continually in the top band and consistently low Bactoscan

scores. But with the influx of new cows, Paul started to see a steady rise in cell counts, to more than 320,000 cells/ml. The milk was no longer in the top band and Paul lost 0.5ppl for at least six months.

Herd quality

"The inevitable conclusion was that we had bought in a problem and, with a lot of heifers coming through, I needed to get cell counts under control again before the heifers calved down – I didn't want them picking up udder infections from the rest of the milking herd.

"We are planning to use the heifers to replace older cows and to improve herd quality, rather than expansion, and desperately wanted to avoid losing new animals to disease."

The cows are milked twice a day through a three-year-old 18:36 DairyMaster direct-to-line parlour with ACRs. Milking is a one-man operation shared between Paul and a part-time herdsman. Paul had always followed a strict milking routine based on pre-dipping, wiping and post-milking teat spraying. Gloves are always worn during milking.



Paul James: "I lost 0.5ppl for at least six months due to raised somatic cell counts"

There was no special treatment for mastitic and high-cell-count cows and, after reading an article in the press, Paul began to wonder if the problem might be the result of cross-contamination within the parlour. The NMR individual cell count report highlighted several cows with cell counts in excess of one million cells.

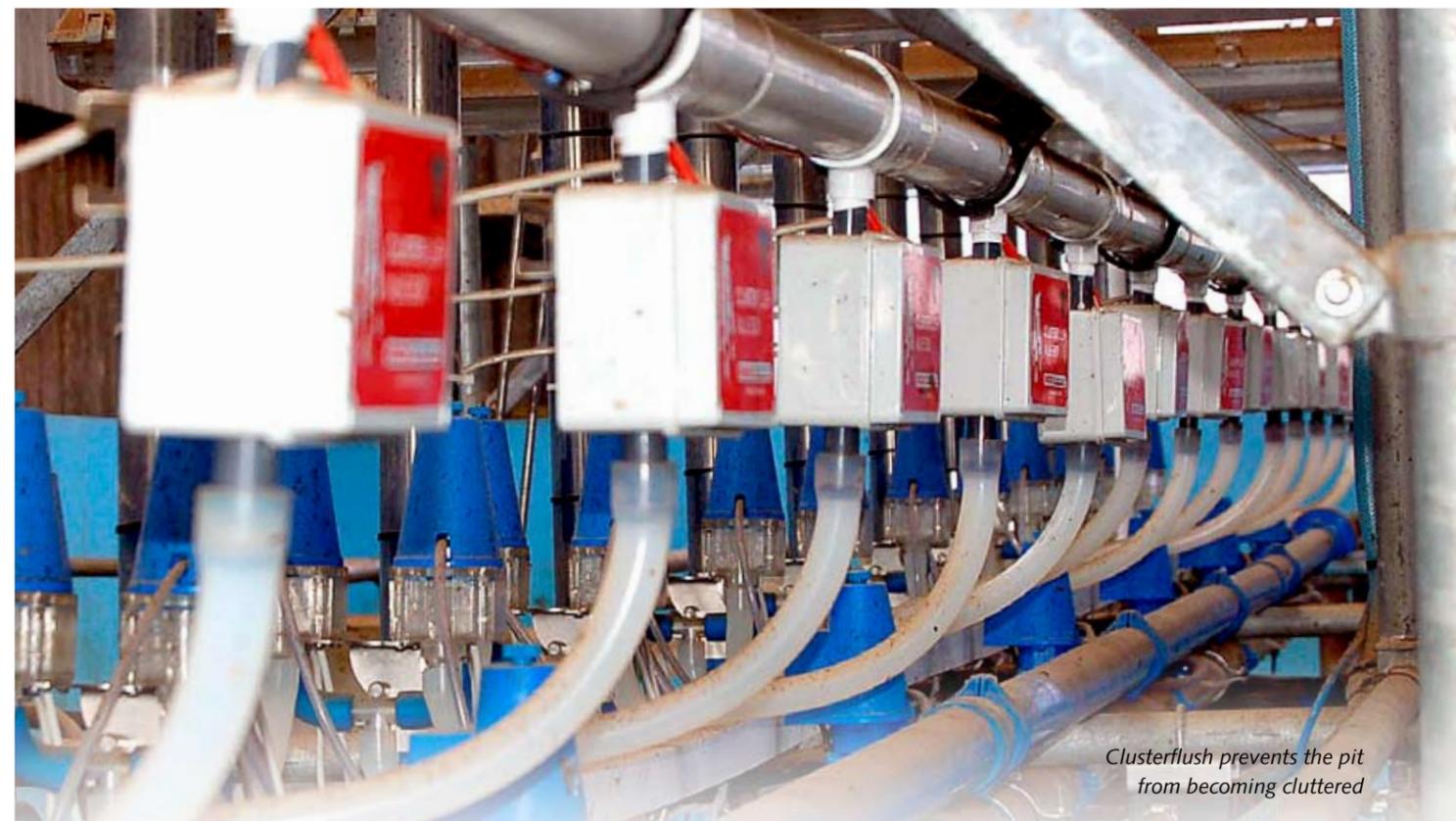
Cross contamination occurs in the liner because every time the unit is removed from a cow a residue of milk remains, leaving a reservoir of bacteria that can infect the next cow to be milked. If this residue is from a high-cell-count cow the risk of infection is far greater.

"The principle of cluster flushing is absolutely sound – removing bacteria from the unit before it is applied to the next cow makes perfect sense. It eliminates the chance of pathogens entering the open teat canal of the next cow," says Paul.

US research shows that effective backflushing with water after every cow reduces the risk of cross contamination by 95%, while the addition of peracetic acid reduces it even further to 99.8%. These results have been confirmed in trials in the UK.

After discussions with his Dairy Crest supply manager and Peter Brown from Promar, Paul decided to install a Vaccar Clusterflush system.

This system cleans the unit after every cow is milked and is triggered by the ACR. When the unit is released the



Clusterflush prevents the pit from becoming cluttered



An IBC in the loft acts as the reservoir for the system

vacuum is automatically reapplied to sweep out any residual milk. Plain or sanitised water is then gravity fed through the long milk tube to the cluster. This is followed by a blast of compressed air to force out the water. The whole process is then repeated, taking just 30 seconds from the time the cluster is removed and so it has no

significant impact on milking times. The system can work with water or a solution of peracetic acid.

"Manually dipping clusters would have added considerable time to each milking and would have cluttered up the pit," says Paul. "And there was no guarantee that every cluster would be effectively cleansed every time. The Vaccar system overcomes all these problems." Installed in just two days in August 2007, by George Berryman of Milkflo Services who worked around normal milking times, the system cost approximately £9,000 to install.

Peracetic acid

The system is filled from a water reservoir, which is an old IBC container that Paul installed in the parlour loft. To help him to get on top of the cell count problem quickly, Paul adds peracetic acid to the tank at the moment

but he will probably stop this and just flush with water once cell counts have stabilised and the problem cows have been replaced.

Since installing the system the cell counts have steadily fallen and are now averaging between 200,000 and 260,000 cells/ml. "We need to be below 220,000 cells/ml to get back in the top premium band and we're hopefully not too far away. As well as flushing clusters, we can use NMR to identify problem cows. But at the moment we haven't culled any cows," Paul says.

"We have also seen a reduction in clinical cases of mastitis and currently see less than two cases per week, so there is no doubt that the system is paying for itself by increasing the amount of saleable milk produced."

Rachael Porter

New names for mastitis tubes

Two of the most well-known brands of mastitis tubes, ones that are widely used and respected by the farming community, are about to undergo a minor name change. Leo Red and Leo Yellow will now be known as Ubro Red and Ubro Yellow.

The supplier of these two products in the UK, Boehringer Ingelheim, is keen

to stress that it is only the name that has changed. "As part of our agreement with Leo Pharmaceuticals when we purchased these products, we were asked to change the Leo prefix at the end of 2008," explains the company's sales and marketing manager Steve Williams. "The product formulations will remain exactly the same."