

Quicken the milking routine without compromising milk or udder hygiene

Cut cross contamination

We take a look at two of the latest pieces of parlour 'add-on' kit that promise to help improve teat condition, udder health and milk hygiene quality, while at same time save money and reduce the number of hours you spend in the pit.

text Rachael Porter

A flushing system that cleans liners between each cow milking has helped one producer to reduce both cell count and mastitis levels in his herd – and save time in the milking parlour.

Ben Beddoes, who milks his 170-cow MRI herd at Churchstoke in the Welsh Borders, installed the Airwash system – supplied by Shropshire-based company Dairy Spares – in his 12:24 swing-over parlour in 2010 and he hasn't looked back since. "For us, it really has been the solution to

tackling mastitis caused by cross contamination," he says. "I used to wash the clusters by hand after each cow with water and paracetic acid. And it worked to an extent, but it was a big job and very time consuming – adding at least an hour to total milking time each day. And it was also only as good as the man doing the job," he adds.

Removing the cross contamination issue has seen the herd's mastitis cases fall by a third and somatic cell count has also fallen from 194,000 cells/ml to 133,000 cells/ml – surpassing the 150,000 cells/

target that Ben set. "It's phenomenal. And we recorded a SCC of 74,000 cells/ml a few weeks ago – the lowest we've ever seen in our herd. We're getting the best price that we can for our milk because the quality couldn't be any better." Cases of mastitis have also fallen and are still decreasing on a weekly basis. To date, Ben is seeing 33 fewer cases of mastitis each year and this has dramatically reduced his vet costs. "The cost of one case in our herd tends to be around £200, so the reduction we've seen is equivalent to £6,600. This saving means that the system has almost paid for itself already."

Before investing in Airwash, which can be installed in any parlour and to existing clusters, Ben had looked at different existing flushing systems. Some would have been cheaper to install, but didn't work if the cluster units were upside down. They had to be turned before cleaning. "But with this system that's not necessary because it can flush the

cluster clean whatever position it's in. Airwash is also different as it just flushes the vital part of the cluster – the liners – compared to some other systems that flush the whole cluster. This saves water. It uses between 400-500 ml of water and chemical solution for each cow. "And when the whole cluster is flushed, a lot of milk fat goes on the floor, making it slippery," says Ben.

Ben's vet, Oli Hodgkinson, says that the system has also improved herd fertility since the higher the somatic cell count, the less fertile the cows tend to be. "The calving index was 4.31 in 2010 and now it's down below 4. Improved somatic cell counts combined with other changes to herd management have led to this index reduction. The extra profit linked with this improvement is around £49,500 per year," says Ben.

Ben said he would not hesitate to recommend the system to other producers. "It hasn't complicated the milking routine – quite the opposite in fact. And it's doing the job that I wanted too, and more. It's proved extremely cost effective."

The only downside is that because the system is installed on the liner so has to be reset every time the liners are changed – in Ben's case four times a year. "It's a



Hand-held system: three brushes ensure that the teats are clean and ready to be milked

big job, but it is worth the effort. Once you get used to doing it it's fine. "And the installation time is nothing compared to what I save every day when milking and treating mastitis cases."

Hand-held teat-prep system

Another add-on that, again, can be installed in any type of parlour is the Teat Saniclean system, manufactured by Lancashire-based Northern Dairy Equipment.

There are several different models of the system to suit customers whose herd's range in size from 100 to 2,000 cows.

"The hand-held system washes, disinfects, dries and stimulates the teat ready for milking," explains the company's Mathew Wiggans. "And this is all done in approximately 10 seconds – the cow is then clean and ready to be milked."

Launched in January and already in use on eight UK units, as well as several in the US, Canada and Hungary, the system provides a time saving alternative to other pre-milking routines while at the same time helping to reduce disease and cross contamination.

It has three rotating brushes. The upper two are counter rotating and they wash, sanitise and massage the external surfaces of the teats and the base of the udder with warm water and sanitiser. At the same time, the third brush completes the same operation at the tip of the teats. The whole system is manually operated moving from cow to cow on a stainless steel wire up and down the full length of the parlour just above head height.

"We designed the system with cow comfort and clean milk production

in mind. The durable, yet soft brushes in conjunction with the Saniclean sanitiser remove dirt while providing the necessary stimulation.

"The speed of the brushes and the sanitiser has been developed and tested for maximum milk let down. And our customers report a significant improvement in teat hygiene and condition," explains Mathew.

Following installation, producers say that they benefit through time saved in the parlour report – it allows them to speed up their pre-milking routine, eliminates the use of paper towels and medicated wipes, and they are able to milk more cows per hour.

They also say that the system is lightweight, but strong and easy to use. More importantly, it offers consistent teat cleaning and preparation, reduces the rate of cross contamination, and keeps milkers' hands clean.

"Customers also report that their cows are cleaner and healthier and less prone to mastitis. We believe that the elimination of the first drops of milk removes a broad spectrum of contagious bacteria and that the reported improvements in cell counts are also related to better teat condition."

The system can be fitted quickly and certainly between milkings. "Every unit is different and so each installation is customised to suit the individual parlour," says Mathew.

"Our engineers carry a complete range of spare parts in their vehicles and we also offer an overnight postal service for replacement brushes and other parts when necessary. We pride ourselves on providing service 24/7 so customers have



Automatic wash: the Airwash system flushes the liners clean between each individual cow milking



Simple solution: installing a slide pulsator should help to minimise parlour breakdowns

peace-of-mind knowing that we are just a phone call away.”

Lactic-acid based products

A range of lactic-acid based teat-care products is now available from chemical hygiene specialists Agrosolve. Two teat-care products – Lactospray All-Ways and Lactodip – are formulated with enhanced lactic acid, offering superior disinfection and skin conditioning as an alternative to iodine based products. So says the company, which is part of GEA Farm Technologies.

“Both products are proven to have an efficacy that is at least as good as our premium iodine and chlorhexidine dips, so there is absolutely no compromise on quality,” stresses Agrosolve’s Chris Bisdee.

Coloured orange for high visibility and enhanced dipping control, both the spray and the dip have a high emollient specification of +15% and

Iodine-free: two dairy hygiene products based on lactic acid are now available



are EN1656 certified. With no mixing required, they are ready-to-use and available in 25, 200 and 1,000-litre pack sizes.

The company adds that Lactospray All-Ways is versatile because it is suitable for use before and/or after milking as a spray, dip or foam. It claims that this makes it unique in the market place.

For use after milking, Lactodip is a breathable product that gives prolonged teat protection between milkings. The consistency of the dip means it doesn’t drip as much as other post teat dips making it more economical to use.

Pulsator ‘evolution’

A pulsator with just eight working parts has been launched by BouMatic. The HiFlo Evolution pulsator is the newest addition in a long line of pulsators developed by the company.

“Our pulsators are in place on thousands of dairy units across the world,” said the company’s brand manager Dennie Plomedahl.

This latest model boasts a simple, robust design and is manufactured in the US. The company says that no tools or special handling is required for its service and maintenance.

BouMatic is also launching several more products at major dairy and agricultural shows and exhibitions in 2012, including the Xcalibur Streamline – its newest rotary milking system – and robotic systems for milking and for applying teat dips.

A simple pulsation solution

Producers looking for a simple, reliable, easily maintained and cost effective pulsation solution for large and small parlours may want to take a look at the Read Slide Pulsator. So says Peter Joules of UK and European distributor PHR Milking Equipment.



Pulsator: Boumatic’s HiFlo Evolution

The pulsator, which is now available for the first time in Europe, is being imported from New Zealand by the Kent-based company. This follows its installation in Peter’s own 70-point rotary parlour.

He spotted it while he was in New Zealand researching rotary parlours for his unit at home.

“I want minimal breakdowns and maintenance. Every time a parlour breaks down it is money down the drain. The slide pulsator is simple and virtually maintenance free. All we have to do to maintain the working parts is lubricate them with a silicon lubricant every few months.”

Available in 4+0 and 2+2 configuration for both herringbone and rotary parlours, the pulsators are available in three pipe sizes – 50mm, 62.5mm and 75mm.

The entire pulsation for a parlour is run from one electric motor, minimising the risk of breakdowns, while there are no valves or seals involved, again cutting the maintenance requirements and breakdown risks.

Peter adds that the simpler a parlour can be the better. “This system simplifies parlour maintenance and by removing as many of the possible failure points as possible we can cut the risk of downtime.

“The pulsator is driven by a simple series of rods, interlinked by joints all of which can easily be replaced should they break. That’s said, the likelihood of this happening is low under normal use.”

The slide pulsator can be flushed with wash water and is unaffected by variations in temperature or vacuum level.

With large porting on the pulsator there are also unlikely to be blockages from foreign objects that may be sucked into the airlines. |