

Dip before you strip

Pre-dipping is key to maximising bacterial kill and protecting udder health

Cleaner teats and fewer infections are just two of the benefits of including pre-dipping in your milking routine. Read on to find out what other advantages to cow health and milk quality it can offer and decide if it's time for you to think about introducing pre-dipping.

Milking routines that include the pre-dipping of teats are the most effective when it comes to controlling mastitis causing organisms. That's the view of vet Owen Atkinson, from Cheshire-based practice Lambert, Leonard and May. He believes that developments in the bacterial challenge faced by dairy cows makes the case for pre-dipping stronger than ever before. "The primary purpose of pre-milking hygiene is to kill the bacteria present on the teat. For the past 30 years contagious mastitis has been the biggest problem, with Staph aureus the most prominent bacteria," Mr Atkinson explains. "But more recently environmental mastitis, caused by E coli and Strep uberis, has accounted for a greater proportion of clinical cases and as many as two-thirds of bacterial isolates are now environmental pathogens.

Reducing bacteria

"With environmental mastitis becoming more prevalent than traditional contagious infections it is even more important that producers adopt a total hygiene management approach to controlling infections and this should include the use of pre-dipping." Reducing the numbers of bacteria on the teat prior to milking will have two major benefits, according to Mr Atkinson. The first is that it prevents bacteria from getting into the bulk tank and contributing to raised bactoscans. The second is that it prevents bacteria from entering the teat orifice while it is open and, therefore, reduces the risk of udder infection.

"If the principle objective of pre-milking

hygiene is to kill bacteria, then success will be measured by the system that has the potential to kill the most and so reduce the bacterial challenge to the teat," says Alison Cox, technical manager with hygiene specialists JohnsonDiversey.

The benefits of pre-dipping extend far beyond the fact that they contain biocides. "While pre-dips have the distinct advantage over many other pre-milking routines in that they are biocidal and so will kill bacteria on the teat surface, they have several other advantages," she adds.

Ms Cox believes that dipping is particularly beneficial when compared with moist wipes as it encourages a more thorough wetting of the teat. "Removal of soiling is a crucial stage in controlling teat skin bacterial populations. Wetting the teat encourages a more rapid and thorough lifting of the soil from the skin and ensures that the biocide gets into the nooks and crannies on the skin surface where bacteria can lurk.

"The other reason it is important to remove soiling is that dirt on the teat is an abrasive and the action of the milking machine on a soiled teat can potentially lead to damage to the teat skin and predispose the cow to infection.

The trend during the past few years has been for cell counts to rise in the summer months and Ms Cox says that it is possible that reduced attention to udder preparation may be a contributory factor.

DipSave: device claims to save up to 30% in dip costs



Device saves on teat dip

Savings of up to 30% in teat dip costs can be made with a new device that is now available from Dairy Spares. Using DipSave also ensures a more thorough coating of dip onto the teat and this helps reduce mastitis incidence and lower cell counts, bringing further financial benefits, according to the company.

The device is a plastic cap that clips onto the top of teat dip cups and contains a circular arrangement of brushes, which regulate the volume of dip applied. This enables a more effective and consistent application of an appropriate amount of dip to each teat.

And it also cuts the amount of dip

wasted through spillages out of the top of the dip cup and from excess dip being applied to the teats. It can be used for teat dipping either pre- or post-milking.

The product has already been tested in the UK through Cheshire-based vet practice Lambert Leonard and May. "Using it on one local farm has resulted in savings of 30% on dip costs. Each set of brushes lasts for at least 30,000 cows – or 120,000 teats – and this means that for every £1 spent on the device, there's a saving of £4 on dip. So it has soon more than paid for itself."

The cap and brush costs £45 plus VAT, with replacement brushes at £25 plus VAT.

"Although the cows are out and may look, superficially, cleaner than when they were housed, the udder is still exposed to the full range of mastitis causing pathogens and so strict hygiene routines need to be adhered to. Pre-dipping is one way to make these routines as effective as possible."

Increasing milking speed

Pre-dipping, as part of a thorough cleansing routine, can also serve to increase the rate of milk let down, according to Genus ABS's Paul Nunn.

"If you put the cluster on the cow without significant prior stimulation, she'd milk for between 40 and 50 seconds and then there'd be a pause of roughly the same time while the udder sent messages to the brain to stimulate milk let down," he says.

"During this time, the cluster – a heavy object in comparison with the cow's relatively delicate udder – hangs 'useless' on the cow. Eventually the natural flow of milk resumes, but at a comparatively moderate rate. This process is called 'bi-modal milking'."

Good udder stimulation – achieved by

pre-dipping, wiping and stripping – before milking takes about a minute, but during this time the udder is sending those all important messages to the cow's brain and when the cluster goes on she's ready to milk. "In this instance both cow and machine perform at their optimum," adds Mr Nunn.

And recent studies in the US have shown that this increases milking speed and reduces the time that the cluster is attached to the cow by 12% – good news for the cow and, particularly, her udder health.

"If a cow lasts for four lactations, that's the equivalent of half a lactation when she's not standing in the parlour with a cluster attached. If she lasts for eight lactations, it's equivalent to a whole lactation. So that's considerably less wear and tear on her udder."

So pre-dipping, and the thorough udder preparation that inevitably comes with it, has several benefits. It's worth adding it to your milking routine to see what a difference it could make to your herd's udder health.

Rachael Porter