"TEAT PREPARATION – EVIDENCE OF SUCCESS"



Since its launch into the UK market in late 2016, the CID LINES PureFoamer pre-milking teat preparation system has grown to become an important part of maintaining milk quality and efficient milking on many farms. In fact, by the end of 2017 there were over 30,000 cows in the South West alone benefitting from the superior cleaning, disinfection and milking times that the system is able to bring. So with the mission of producing "Cleaner, Faster Milk" being realised, we thought it was time to look at the evidence and why it is a system to consider. But first, a reminder of why PureFoamer is important.

WHAT HAPPENS RIGHT NOW ON FARM?



"Strip, Dip, Wipe, Apply" is the proven mantra that still works. We strip to check for issues and stimulate milk let-down. We then dip to clean and disinfect teats. This is followed by a thorough wipe off to remove the dip residue along with muck and dirt and finally, we apply (attach) the clusters. Unfortunately, corners are cut and mistakes can be made in areas of this process.

"DIP"

This part is crucial as it represents the best chance of starting the dirt and muck removal process as well as disinfecting by removing pathogens. However, in many cases a product is used that does not contain the ingredients (surfactants or simply put, soaps) to remove debris, or the disinfectant included is not suitable to provide the rapid kill needed pre-milking. Additionally, products are often sprayed-on which is not optimal for total teat coverage due to the high chance of poor technique. So using this information, an iodine-based product that contains no surfactants and which is sprayed-on is sub-optimal due to the slow kill, lack of cleaning capability and chance of poor coverage.

"WIPE"

Linked to the potential issues above, wiping can be compromised by poor technique or unhygienic practice. Assuming a pre-dip has been used which does contain surfactants, a new paper towel for each cow should be used with careful attention paid to wiping the teat end clean. This area is often overlooked but is an important area to focus-on before attaching the clusters.

THE PUREFOAMER SYSTEM

Put very simply, the PureFoamer system enables a fast acting, lactic acid-based product (Keno™pure) to be applied to teats as a very high density "dry" foam. The surfactants included in Keno™pure allows dirt, muck and debris to be removed extremely easily after 30 seconds with a paper towel, giving peace of mind that bacteria on the teats have been killed. Being an automatic system with a piped fed-line, foaming is straightforward, faster than applying a spray and with better coverage and less wastage.

RESULTS AND EVIDENCE FROM THE FIELD

Feedback from users of the PureFoamer system is positive. Typically, users report lowered bactoscans, reduced cases of mastitis, improved teat condition, faster milking times with less teat damage and significantly reduced costs of product. Such anecdotal evidence is compelling and serves as excellent testimonial evidence for new users who are considering using the system. However, a recent "Dairy Shield" whole farm dairy audit carried out by Trevor Rogerson of Pearce Dairy, included a deeper look at teat hygiene pre-milking and what the optimal protocol would look like for this individual farm.

DAIRY SHIELD TEAT PREPARATION RESULTS

The audited farm had used many different teat preparation processes in the past, all with different results. Whilst some such as a dilute hypochlorite spray seemed to have been initially effective, deteriorating teat condition had halted the procedure. It is also worth remembering that seasonal conditions and

TEAT PREPARATION METHOD			ATP READING		
CODE	TREATMENT (TX)	WIPE OFF	PRE PREPARATION	POST PREPARATION	% REDUCTION
А	None	None	1266	1266	0%
В	Hypochlorite spray	None	260	100	62%
С	Preparatory alcohol-based pre-wipe	None	577	492	15%
D	lodine-based post-spray	New dry paper towel wipe (After 30-60 secs)	835	627	25%
	Kenopure foam	New paper towel wipe (After 30-60 secs)	840	3	99,6%

(Table 1)

weather patterns can also affect results.

Using a device which measures the presence of ATP on a surface, indicating challenged cleaning processes and the resulting presence of contamination including bacteria, we looked at the effect of different teat preparation techniques on teat cleanliness.

In the study, four different preparations were used, each of which had been used before on the farm. In addition, Kenopure was demonstrated and recorded as a new alternative to the existing options. (*Table 1.*)

Whilst the study was very limited and did not include all teat preparation options currently available in the UK, the results that were recorded showed a considerable advantage to the PureFoamer system with a 99.6% drop in contamination after using Keno™pure. In addition, in all cases apart from when Keno™pure was applied, there was visible contamination to teats before attaching clusters and in the processes which included hypochlorite spray and alcohol-based wipes, teat skin condition was observed to be "dry" post-application.

Further results will be recorded as Pearce Dairy continue auditing on customers farms and we hope to be able to report on similar results as the data grows and the evidence becomes available.

INSTALLING A PUREFOAMER SYSTEM

Installation of the PureFoamer system into dairies could not be simpler. Utilising the tried and tested Cotswold "SupaSpray" pump, the only connection needed is a feed into the vacuum line. This enables the uptake of Keno™pure from the drum and the feed of Keno™pure to the PureFoamer foaming head cup. There are no electrical connections or compressed air feeds needed, meaning that as well as being very simple to install, there are few parts to fail and a very high level of reliability. The PureFoamer system is available exclusively through Pearce Dairy and its sub-distributors in the South West with "Start-Up" offers available with everything needed to start delivering a new level of teat preparation on your farm.



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