

Coverage of teat spray the key to reducing mastitis

MANY studies have shown that teat spraying reduces mastitis by 50 to 60 per cent. However, it must be also done well to be effective.

“Good coverage of teat barrel, using a good teat spray that stays in suspension, spraying twice a day are all important factors and have trials to prove that it is of benefit to mastitis prevention,” said Mel Eden.

It is recommended that you should teat spray every time cows go through the dairy, and ensure that the whole surface of the teat is being sprayed. Good coverage on the back of the teats is very important, as this area is exposed to the weather. A good spray will use up to 20ml per cow. When aiming for good teat condition it is a good idea to use teat spray with emollient added – up to 15 per cent is recommended at times of the year when the weather could lead to skin damage. Why? Because maintaining good skin condition is a key factor in reducing keeping new infection rates low.

Good coverage is important to control the growth of bacteria which can be responsible for an increased number of new infections at calving. Teat spraying for this purpose alone should be done twice a day, and for every milking of every cow for the full

lactation. There is some suggestion that it is the removal of bacteria on the skin that is important rather than the timing. Studies done in New Zealand on the prevention of *Streptococcus uberis* by teat spraying before calving resulted in a reduction in new infections by 40 per cent – an amazing result. Theoretically, the teats at this time are closed.

The question is often raised regarding the timing of teat spraying in relation to how long the teat canal remains open after cup removal. There is evidence that teats do not shut tight for several minutes after cluster removal at milking time. The information varies about the actual time taken for the teat canal to reseal completely – some reports indicate around eight minutes, others up to 1.5 hours.

According to Dr Graeme Mein, all teats experience at least one longitudinal contraction just as the cups are removed at the end of milking. This teat contraction induces refolding and immediate closure of the teat canal. It is easy to see that the teat canal must have closed immediately after milking. If it didn't close, then a small amount of strippings milk would continue to dribble out. Although the canal is closed, it cannot reseal immediately



Teat spraying must be done well to be effective. Coverage is most important.

because tiny puddles of milk remain trapped in the crevices and folds of the keratin lining. These milk residues are removed by re-absorption and by drying at the external orifice. This process is more rapid in conditions of low humidity and moderate temperatures, much slower in cold wet climates. The teat canal never returns to its pre-milking sealed condition if the teat-ends are kept wet.

Dr Mein concludes: “Given that this post-milking process of drying and natural resealing may take 30 to 90 minutes, it is diffi-

cult to believe that the timing of post-milking teat disinfection has any significant practical influence on mastitis incidence over a range of, say, one second to five minutes after teatcups are removed. Therefore, my advice is to concentrate on doing the job really well rather than interrupting a milking routine to get it done at the instant of teatcup removal.”

Sources: Mel Eden – Farm Dairy Specialist - Fox, Eden & Associates
Graeme Mein – Werribee, Australia