

FARMER GUIDE

TEAT CONDITION AND TEAT DISINFECTION

The teats of the dairy cow play an important part in quality milk production. The teat is the only point of contact of the milking machine and the cow, therefore the condition of the teat is important not only to ensure good milk flow at milking (milking out), but also in preventing infection of the udder (mastitis).



The skin of a damaged teat may harbour many different bacteria responsible for causing mastitis. Teat condition is affected by the weather (particularly cold and wet weather), contact with caustic agents (for example lime from cubicles, improperly mixed teat disinfectants) and the milking machine (for example poor liners and improper vacuum levels).

The condition of the teat end orifice is especially important. A healthy teat end will help

prevent bacteria responsible for causing mastitis from gaining entry into the udder.

The rate of new infections in the udder is related to the number of mastitis-causing bacteria on the teat and teat orifice. The numbers of these bacteria can be reduced by teat disinfection.

▶ Pre-dipping

Pre-dipping refers to disinfection of the teat before milking. It reduces the numbers of bacteria, particularly those from the environment such as *E.coli*, that are present on the teat before milking. Pre-dipping is therefore an important control measure for environmental mastitis, and will reduce the overall bacterial load improving milk quality.

▶ Specific pre-dip

A specific pre-dip should be used, as the speed of antibacterial action needs to be quicker than with a post-milking dip. The teats should be dipped and a 30 second contact time allowed before the disinfectant is wiped off. The disinfectant should be thoroughly wiped off before milking to prevent contamination of the bulk tank with disinfectant.

▶ Post-milk teat disinfection

Post-milking teat disinfection aims to kill any bacteria transferred onto the teat during milking, before they are able to gain entry into the udder via the teat orifice. Post-milking teat disinfection is especially effective against contagious bacteria including *Staphylococcus aureus* and *Streptococcus agalactiae*, reducing the rate of new infections caused by these bacteria by up to 50%.



Post-milk teat disinfection can be achieved by applying a suitable disinfectant to the teat immediately after every milking. The teats can be dipped in disinfectant using a dip cup or sprayed. Either method is acceptable as long as it is undertaken conscientiously and the whole teat is covered. Using a dip cup, the whole teat should be immersed, using 10ml of disinfectant per cow per milking. If using a sprayer, two rotations around the udder, clockwise and counter-clockwise, ensuring each teat is fully covered, will use approximately 15ml of disinfectant.

A wide variety of post-milking teat disinfectants are available and each should be proven to effectively kill mastitis-causing bacteria. Most contain iodine, chlorine or chlorhexidine. They may also contain additives such as emollients to promote good teat condition.

▶ Teat disinfectants

Teat disinfectants should be handled correctly. Following the label instructions will ensure the disinfectant will be mixed correctly and used at the recommended concentration. If they require pre-mixing this should be done with clean water.

A suggested pre-milking routine including foremilk stripping and pre-dipping before application of the milking unit would be: **STRIP – DIP – DRY – APPLY**