

Comparison of bacterial load between teat dip cup types with or without attachment



Elizabeth Berry¹, Colin Kingston², Jenny Clarke¹, Richard Hiley², Richard May²

¹Institute for Animal Health, Compton Newbury, Berkshire RG20 7NN, UK, ²Ambic Equipment Limited, Avenue Four, Station Lane, Witney, Oxfordshire, OX28 4XT, UK



Introduction

- Post milking teat disinfection is a well-proven control measure and prevents up to 50% of new infections depending on the causal organisms.
- Teat dipping is most effective against contagious organisms *Staphylococcus aureus* and *Streptococcus agalactiae*.
- Dip cups can become contaminated with a variety of organisms both from the teat skin surface and from milk.
- A novel teat dip cup with an attachment consisting of bristles which 'sweep' the teat as the teat dip cup is removed, minimising the amount of teat dip used, is available.

Method



- Post milking teat disinfection was carried out using an iodine based teat dip in either a conventional non return teat dip cup or the same dip cup with a brush attachment.
- Teat dip cups and any attachments were dipped in absolute alcohol for 5 minutes prior to each exposure phase.
- Each teat dip cup type was used for four different exposure phases – one milking, four milkings (two days), eight milkings (four days) and 14 milkings (seven days).
- Teat dip cups were not washed in-between milkings, unless visibly contaminated.

Summary

While the bacteria isolated in this study were not common causes of mastitis, the potential for a build up of pathogens to occur is a risk. This study highlights the importance of being able to easily disinfect the teat dip cup attachment between milkings and this is an important consideration in order to minimise potential bacterial contamination of teats at milking.

Results

Most bacteria isolated from either the teat dip cup or brush attachment were *Bacillus licheniformis* or *Bacillus subtilis*.

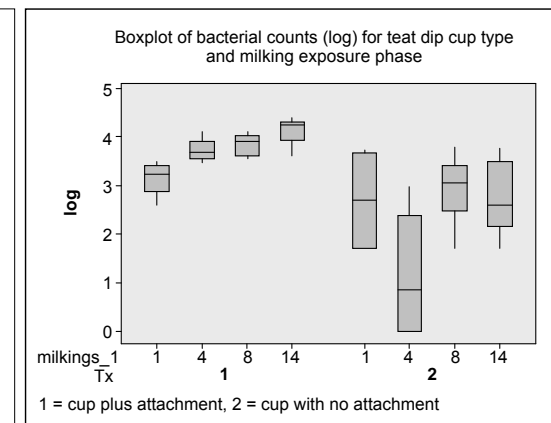
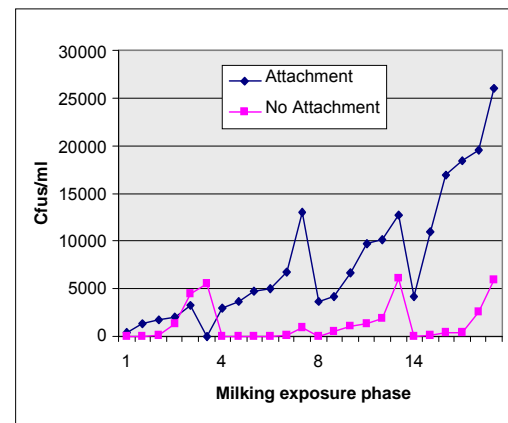


Figure 1 - Total bacterial counts for the different teat dip cup types against milking exposure phase