



From the desk of Dr. Mark Fox DVM

March 1, 2020

"Udder Tips" from the 2020 NMC

The 59th annual Meeting of the National Mastitis Council was held last month in Florida. I, once again, was impressed by the international "think tank" of attendees from all around the globe pursuing advancement of the dairy industry in milk quality and dairy stewardship. I will highlight several topics I found to be interesting and stimulating for those of us in the milk-sheds working hard to reduce mastitis and enhance milk quality.

10 Practical Tips for Controlling Environmental Mastitis (Peter Edmondson, UdderWise Ltd.)

1. Clean udders and teats.

This is the most important control measure. Teats and udders must be kept clean to keep environmental bacteria away from the teat end. The best way to assess environmental cleanliness is to look at the teats and udder. Keep cows on clean, dry beds when housed. Tails should be trimmed, and udders clipped. Cows can get dirtier at pasture than when housed.

2. Calving pens

Calving pens must be kept as clean as possible as freshly calved cows are very prone to mastitis. Their immune function crashes around calving, increasing the risk of toxic infections. Make sure that calving pens are cleaned out frequently.

3. Freestalls

Deep, soft beds with virgin sand is the gold standard. Provide plenty of stalls, well designed to allow forward lounging, enabling the cow to rise with ease. Great stalls allow the cow to rest up to 14 hours/day so pay diligent "attention" to maintenance and stall grooming. Sand quality is variable by nature and needs to be monitored. Dig down with your heel or knife in the rear of the stalls. How is it? Too hard? Too dirty?

4. Teat prep

The gold standard is to pre-dip. This reduces the number of bacteria on teats and reduces clinical mastitis. Most people will apply pre-dip and then strip the cow immediately afterwards as it is easier to strip a wet teat than a dry one.

There are a variety of pre-dips available, some liquids and others foam using a range of disinfectants. Allow a contact time of approximately 20-30 seconds to soften any dirt and for the chemical to kill bacteria. The pre-dip solution must be wiped off with a piece of clean cloth or piece of paper towel and the unit attached. There should be a delay of about 90 to 120 seconds from stimulation to attachment.

One way to assess teat prep is to look at the milk filter at the end of milking. If it's clean it suggests that teat prep is adequate, if dirty teat prep should be reviewed. Also look inside the liners during milking for evidence of fecal contamination.

Coliform counts of bulk milk are a useful way to assess teat preparation.

5. Proper milking machine function.

It is essential that the milking machine is working correctly and there is stable vacuum levels and effective pulsation. You should not have problems with teat damage, liner slip or cows kicking at the units.

6. Teat condition

Regularly check teat condition after milking. All mastitis infections must enter through the teat canal and there is an increased mastitis risk if there is damage. The teat canal is the primary mastitis defense mechanism keeping infections out of the udder.

7. Nutrition/Vaccination

Good nutrition is key to healthy cows. Make sure cows are not deficient in Vitamin E and Selenium which are essential for good immune function.

Vaccination against E. coli mastitis can be useful in high risk herds. The vaccine uses a core antigen to stimulate immunity. This vaccine reduces the severity of mastitis and in doing so more cases undergo self-cure. Vaccination has been proven to reduce clinical mastitis.

8. Culture to identify the cause

Identify the causes of clinical mastitis so that you can improve control measures. Coliform counts of bulk milk are a useful way to check on milking hygiene. If high this indicates that the hygiene is poor. If low, milking teams can be praised.

9. Training and staff motivation.

Training of all farm staff to ensure that they follow the correct routines and procedures is essential. This can include the milking routine, dry off procedures, management of freestalls and bedding etc. This should be ongoing.

10. Summary

Many herds have reduced levels of environmental mastitis through good hygiene and attention to detail. Some herds have been surprised by the success of basic control measures and want to reduce environmental mastitis even further. Attention to detail, training and good team work are key to success.

Michigan dairy farms "rock" with respect to milk quality! The majority of the National Dairy Quality Award at the 2020 conference were, once again, received by our home state, due to your diligence day in and day out!

Awesome Job!

Dr. Mark