

Sweat the Small Things! Best Practices at Milking

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A few years back, I had the honor of conducting research in 50 hard-working Ontario dairy herds. I was looking at risk factors associated with high rates of mastitis during our hot, humid Ontario summers. I would always say, half-jokingly, that when I visited these 50 farms twice over the summer, I saw 100 different ways to milk a cow!

I learned so much by observing milking that summer, and there are a few commonalities that came up that, while they may be small, can have a really big impact on the udder health of your farm. As we hurtle towards those fly-filled, muggy days of July and August, it is a good time to make sure you're tightening up your milking routines for healthier cows.

Teat ends: your first line of defense.

Milking after milking, I noticed that the farmers that did the best job at cleaning teat ends had the best udder health. Most milkers did a terrific job at cleaning the barrel of the teat. But, as teat ends are closest to the teat openings, leaving dirt, manure, and debris there can negate your teat preparation efforts and lead to more mastitis. Moral of this story: focus on the teat ends to take your udder preparation to the next level!

Forestripping: If you don't look, you won't see.

I am a huge fan of incorporating forestripping into your preparation routines. Not only does it do a great job at stimulating the udder for optimal milk letdown, but it also allows you to **quickly identify and manage** cows with mastitis. You see a lot by looking!

Get those timings right!

Another key observation I made were the variability in milking timings. The goal of milking preparation is twofold:

First, make sure that the teats (especially teat ends) are **clean and dry**.

Second, the units should be attached to well stimulated udders **at the right time**.

Stimulating the udder through our preparation routine causes the cow to secrete the hormone oxytocin. It is the oxytocin that causes a true letdown of milk. It can take a bit of time for the oxytocin to cause milk letdown, therefore the timing of unit attachment is very important.

Here are some recommendations for milking timings:

Parameter	Target
Udder stimulation (wiping + forestripping)	>12 seconds
Prep-lag (time from start of stimulation to unit attachment)	60-90 seconds (2x/day milking) 90-120 seconds (3x/day milking)

Getting these timings right can make your milking more efficient and reduce unit on-time, overmilking, and ultimately mastitis.

Don't forget to dip

Dipping teats, especially after milking, is one of the most efficacious ways of preventing mastitis infections. I encourage everyone to discuss teat dips with their veterinarian – it is important to choose the products that are supported by science.

For predips, they should be in contact with 100% of the teat for at least 30 seconds to get adequate bacterial kill.

For postdips, make sure you are completely covering all the surface area on the bottom 2/3 of each and every teat. For cows with poor conformation, you may need to separate the teats with your other hand to make sure you are covering all of the teat. We are trying to kill any residual bacteria that could be present on the teat ends and potentially cause an infection. Inadequate post-dip coverage is the most common mistake I see on dairy farms. A little extra effort on each teat can go a long way towards healthier udders!

Conclusion

The good thing about milking routines is that we know the best course of action. The real challenge is consistently putting these actions to practice - day in and day out - so that every cow gets the exact same experience, regardless of who is milking. It's not enough to have these routines written down. You need to be regularly evaluating milking routines to ensure that milkers are not deviating from what is written in the standard operating procedures.

With a little effort and attention to detail, you can take your milking routine to the next level and prevent more cases of mastitis.