

Why Do Teat End Scoring?

Teat end scoring is the process of evaluating cow's teat right after a milking unit is removed. Basically, **teat end scoring is the quickest way to see if your milking process is harmful to your cows.** The milking machine setup is always a compromise between fast and gentle; teat end scoring is an effective way to evaluate how your entire milking process affects the cows. It is a quality control point for the milking system, milker routine, weather, and cow handling.

Teat end scoring will detect damage done to the teat ends, which prolongs the closure of the teat canal after milking. Closure normally occurs in 30-60 minutes but can take several hours if the teat is damaged during milking. This makes the cows more susceptible to environmental mastitis.

The scorer should look for long-term changes in the teat, such as hyperkeratosis and they should also look and feel for short-term changes such as hardness, color changes, swelling and soreness. Short, medium and long term changes to the teats can be evaluated at the same time.

Did I mention it is easy to do? The process involves looking at the teat end as the unit is removed and recording what you see. Long-term changes such as hyperkeratosis can be graded from:

- 1 or N (normal)- This would be a smooth teat
- 2 or S (Slight ring)-There is a slight ring but no hyperkeratosis
- 3 or R (Rough)- The teat end has a rough ring with some hyperkeratosis
- 4 or VR (Very Rough)- The teat has >4mm of rough keratosis on the teat end

Short and medium-term effects are hardness at the teat end, swelling at the teat base, a change in teat color, or small areas of hemorrhage. These can be graded as present or not present.

Examples of these changes can be found on-line and there is web-site to practice grading hyperkeratosis using pictures and a grading system at www.teathealth.com.

SCORE N
No RING

SCORE S
Smooth or Slight Ring

SCORE R
Rough Ring

SCORE VR
Very Rough Ring



As a general rule, you need to score 80 cows or 20% of the herd, whichever is greater, to have confidence in the statistics you generate. Whenever more than 20% of the teats have scores of 3 or 4, it is a problem that needs to be investigated.

Scoring should be done on a quarterly basis because changes in weather, workers and equipment can cause the teat end to change. It should also be done a week or two after changes have been made to the milking system, procedures have changed or new personnel have been trained. The scores should be saved and compared to ones previously done to get an idea of how the milking process is changing.

If you want to have your cow's teat ends scored or to learn how to teat score, contact Dairyland Veterinary Service with any questions.

Dr. Bill Koffman

Would you drink from a calf bottle?

Take a close look on how you clean your calf feeding equipment. Would you drink milk from it? You would if it was cleaned the way you clean your pipeline. That is exactly the way it should be cleaned and sanitized, using the same cleaners and procedure. Let's go through the whats and whys of this.

What #1- Start by rinsing your calf feeding equipment off with warm, not hot, water.

Why- This removes the majority of milk at a temperature that won't denature the proteins and make them harder to remove.

What #2- Then wash it with a chlorinated alkaline cleaner (the same you use on your pipeline). It must be hot (135-140 degrees) and have a pH of 11-12. If you don't have to wear rubber gloves, it probably isn't hot enough.

Why- The heat and detergent dissolves the fats and saponifies them (turns them to soap).

What #3- Then rinse it off and put it in an acid rinse (again the same you use on your pipeline). The acid rinse should be warm water with a pH of 3-4.

Why- The alkaline rinse will leave a mineral deposit. The acid dissolves the minerals and puts an antibacterial film on the equipment.

What #4- After that, hang the equipment up and allow it to dry.

Why- The drying makes a huge difference in killing any organism on the equipment.

What #5- Right before you use it again, sanitize it. We recommend using OxyMer (chlorine dioxide) because it will penetrate biofilm and kill cryptosporidia.

Why- Bacterial populations will increase on the surface between uses. Chlorine dioxide is a safe, quick, and highly effective sanitizer.

If you have questions about your cleaning and sanitizing procedure, ask one of us to look at what you are doing and if there need to be any improvements made. We can help you make a SSOP (sanitation standard operating procedure) manual. We also have an ATP meter to check whether a surface is clean. This is especially important with plastics that get worn and can no longer get properly cleaned or to check the inside of hoses to determine if a biofilm has formed.

By routinely collecting samples of milk or colostrum right before feeding, we can count the bacteria colonies to determine if they meet the safe guidelines. These samples should be refrigerated if they will be tested the same day or frozen if they will be tested later.

Drink up.

Dr. Bill Koffman

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