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WVS MILK QUALITY

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Milkability: Successfully harvest milk quickly, gently and completely

The following article is taken from the May edition of Udder Topics.

Dr. Reid from Hazel Green Wisconsin gave a lecture on milkability at the 2025 NMC convention. He defines milkability as, "the set of conditions and processes required to successfully harvest milk quickly, gently and completely from clean cows with high milk yields in a manner compatible with high parlor throughput." He added that milkability concepts can be used in all herd sizes. "Milkability provides benefits for both individual cow milkings and overall parlor performance," he said.

Note the clean cows pictured above. Cow cleanliness is a leading factor affecting milkability.

Reid explained that excellent milkability can yield positive effects on cow behavior, animal welfare, udder health, teat defenses, teat end condition, milk yield and milking parlor staff satisfaction. Additionally, milkability can influence overall parlor performance by reducing individual cow milking durations – without sacrificing milk yield. This leads to improved stall turnover rates and increased parlor capacity.

There are many factors that affect milkability, but cow cleanliness is a leading factor. To evaluate cow cleanliness, observe cow entry into the milking parlor. Cows should be calm and not splashing manure on their feet, legs or mammary system.

"Look for fresh (movement to parlor) versus dried manure (freestalls or exit lanes)," Reid recommended.

Dr. Reid summarized that milkability success stems from harvesting milk from high-producing, clean cows. He listed four key points:

- Milk gently – without causing pain or discomfort during milking and without compromising the health, defenses or physical condition of teat skin, teat canals and teat ends.
- Milk quickly – optimizing unit on-time with minimal risk of undermilking or overmilking.
- Milk completely – harvesting available milk.
- Milk clean teats – continuously maintaining low teat skin and teat end bacteria loads – both in and outside the milking parlor – and consistently performing excellent pre- and post-milking teat sanitation.

Excellent milkability also involves managing and monitoring an extensive combination of cow and personnel factors, as well as equipment design, installation, maintenance and settings.

"While proper milking machine installation and maintenance are very important to achieving excellent milkability, being in the milking parlor or barn during milking is essential to truly assessing milkability," Dr. Reid concluded.

Staph. aureus is being Confirmed More Frequently as the Culprit Contributing to Subclinical Mastitis

The following is taken from an article by Rhonda Brooks in Dairy Herd Management.

If you look hard enough, you can find Staphylococcus aureus (*Staph aureus*) in at least one cow on every dairy, according to Dr. Justine Britten a PhD animal scientist working at Udder Health Systems Inc.

Despite that bold statement, Britten is not implying every dairy has a mastitis problem or is gearing up for an outbreak. Rather, she is pointing out how common the pathogen is on the farm and that it often flies under the radar, contributing most frequently to subclinical disease.

Britten says that the prevalence of *Staph aureus* is increasing, based on the 7,800 bulk milk samples her company tests, on average, each year. From 2017 to 2021, the prevalence stayed relatively flat at about 20%. Today, the prevalence is more than double that.

"We're seeing it now at around 44% to 45% of all bulk tank samples we do are positive for *Staph aureus*," she says.

Something Britten says has surprised her is that heifers may calve into a subclinical infection, resulting from *Staph aureus,* even in a closed herd.

"Being a closed herd will help reduce the chances that's going to happen, but it's still possible," she says.

In evaluating literature, Britten says between 2% and 15% of heifers are going to calve in with it, and they may have a clinical episode. However, cell counts in the infected heifers tend to be low which lessens detection.

"That's one of the most frustrating things, is that positive heifers may stay around 100,000 or less with their cell count for quite a while before it begins to climb, and that makes it really difficult for producers to get their minds around the fact that this animal is permanently infected with a contagious pathogen. It also makes the disease that much more difficult to manage," she says.

If the dairy is not proactively screening, heifers typically recover from an episode and look fine.

At that point, they are usually returned to the herd where they may infect other heifers and cows.

Britten considers a monthly bulk tank culture as the bare minimum that a dairy can do towards monitoring pathogens in the bulk tank, and she calls it an incredibly helpful tool.

"You're really operating in a vacuum otherwise," she says. "Even by monitoring at the bulk tank level, we're monitoring at the 10,000-foot view. But if [the dairy] is not doing any other culturing, it's still better than nothing."

Britten says she is a strong advocate for screening all cows and heifers as that's the most proactive approach to prevention.

On the dairies she works with that have a very low staff positivity rate, they often sell the cows.

"They're not going to tolerate them, while for others it's too expensive to do that," she says.

"They're going to go into a staph pen, or with the heifers, they try and treat them and see if we can get them cleared up. But yeah, screening, culturing of all fresh cows and heifers is the best way to find those animals early and to manage them."

Britten provides these three additional take-home points:

Take-home point #1 – Not all *Staph aureus* colonies exhibit beta-hemolysis, therefore, it is important that all *Staph* colonies undergo coagulase testing to identify *Staph aureus*.

Take-home point #2 – Monthly bulk tank cultures are a bare minimum monitoring program for dairy farms.

Take-home point #3 – Somatic cell count is a lagging indicator and cultures will detect infections earlier. Britten emphasized that the difference lies in management practices.

Proactive monitoring, culturing, and implementing strict control measures can prevent *Staph aureus* from becoming a major issue, even though the pathogen is present.