

MARIA STEIN ANIMAL CLINIC, INC.

January 2018

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Dr. Lefeld attends Cornell Milk Quality Seminar

Dr. Lefeld spent two days at Cornell at a seminar put on by Quality Milk Production Services. Topics included: Udder Health KPI's; Vacuum and Airflow methods; Short Term Teat Dynamics – Vacuum and Unit Alignment; Cow Side Evaluation – Strip Yields, Hygiene, Teat End Cleanliness; Milking Center Settings and Automation; Milking Center Management and Efficiency; and Bedding and Pathogens.

Four Doctors Attend Zoetis Milk Quality Seminar

Drs. Lefeld, Stayduhar, Nusbaum, and Hardesty were able to attend all or part of the Zoetis Milk Quality Seminar in St. Henry. Topics included "What Drives Financial Success On a Dairy?," The Impact of High Somatic Cell at First Test," "Teat Dipping, Dry Cow Therapy, and SCC: Are These Really Still an Issue?, Parlor Efficiency – How Should it be Defined?" From this seminar comes the following info.

High SCC (>200K) at first test should be considered a disease condition because it lowers lactation production by almost 1600 pounds. A clinical case of mastitis only lowers lactation production by 1000 pounds. Keys to lowering First Test SCC are Environment, Dry Period Length, Dry Cow Therapy and Teat Sealant, and Vaccination for environmental mastitis Pathogens.

Most cows with less than 200 SCC at first test do not get mastitis for the whole lactation. The costs of not getting the dry period right are high. The infected cows produce 1600 pounds less milk, get pregnant 17 days later, they are three times as likely to have a second case of mastitis, and are at risk for early culling. Cure rates decrease with each recurrence of mastitis in a given lactation. Cure rate varies with the causative organism, but

overall the first case has a 65% cure rate, the second case cures about 60% of the time while the third case of mastitis in a lactation only cures 30% of the time with extensive therapy. This is the reason why many herds don't treat the third clinical mastitis case in a lactation. These cases have two options, dry the quarter up or sell the cow. We dry quarters up by stopping milking those quarters. Yes, there was a time that we put solutions in the quarter to "aid" in milk cessation. Many of these things are now considered adulterants and have other downsides like killing cows.

Orbeseal Technique When we've used a product for awhile, we get very comfortable with how it is used, but that doesn't mean we do it right. Orbeseal, done right, significantly reduces fresh cow mastitis. Done right means sterilely introducing the dry cow treatment and massaging it into the quarter, repping the further away teats, grasping the far away teats at the base, introducing the Orbeseal tip just into the streak canal. Then slowly push the air out of the orbeseal tube then enough Orbeseal material to fill the streak canal, but no more. Then reprep and administer orbeseal to the near teats on that cow. When cows come fresh, it can take up to 12 strippings to remove all of the Orbeseal. Those strippings need to start high at the base of the teat and strip all the way down.

Why so Much Emphasis on Milk Quality?

Simple, marketing milk is much like the two guys being chased by a bear. To survive, you have to be better than somebody else. We're available to help you be better, survive, and thrive.

Happy New Year!
Let's Make 2018 Great!
Doctors and Staff Of Maria Stein Animal Clinic.

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Principles of Milk Quality: Simple, Right?

Dr. Andy Lefeld

Principles of milk quality are all focused around milking clean, dry, well stimulated teats. Accomplishing these principles effectively can eliminate many of our problems with milk quality.

Milking clean teats seems like a simple concept at its surface. We use one towel per cow, its clean, the teats look clean when we're done, all is good. Unfortunately, the most important part of the teat- the teat end- is not as easily seen in most parlors, and often times overlooked. The opening at the teat end is the only barrier to preventing the entry of environmental bacteria, which cause mastitis. These dirty teat ends can also not only cause mastitis, but can also increase environmental bacteria counts in our bulk tank milk. If we are really focused on improving milk quality, we need to be watching our teat end cleanliness to identify potential issues.

Dry teats are a little more straightforward than clean teats. Bacteria really thrive in wet environments. In really wet environments, our disinfectants are not as effective either. Water streaming down the teats will carry environmental bacteria with it, regardless of whether we apply dip, pre or post milking. Gravity carries this bacteria laden water to the most dependent part of the udder, the teat end. Dry teats affect not only bacteria on teat ends, but also how the shell/liner interact with the teat itself. Wet teats do not allow the units to fit snugly to the teats and can allow the

liner to slip either up or down on the teat, affecting how well the quarter milks out, or leading to liner slips, which lead to mastitis. Wet teats is an issue that I've seen less of in parlors, but important nonetheless.

Well stimulated teats are another very important topic of milk quality. Stimulation starts a process that releases oxytocin, causing the contraction of the alveoli of the udder tissue (where most of the milk is stored), releasing most of the milk for harvest. This is a process that a milking machine can do, however this is NOT a desirable condition. Milking machine stimulation causes damage to the teat ends because vacuum is being applied to the teat end in low milk flow, which leads to teat end edema, hyperkeratosis, and kicky cows. Milking should be done as quickly and gently as possible, and machine stimulation does not accomplish this. Poor stimulation leads to bimodal milk flows which prolong milking unit on time, which can lead to more teat end damage, making it more likely to develop mastitis. Stimulation is stripping 3-4 squirts of milk from EACH teat, and waiting at least 60 seconds (for 2x herds) or 90 seconds (3x herds). Some have tried to achieve good stimulation from using teat scrubbers alone for stimulation, but we have found through testing that these devices alone do not do an adequate job of stimulation.

As you can see, the principles of milk quality are very straight forward, however, there are components of them that can be easily overlooked.