

CLEAN, SCREEN, & TURN DOWN THE HEAT

(focus on fresh cow mastitis – esp. summer)

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Fresh cows and heifers present the highest risk animals for mastitis. Summertime, especially, amplifies these risks as hot, humid weather increases mastitis germ loads as well as decreases animal immunity due to heat stress, lower dry matter intake, and other stressors. There's no better time to focus and apply a mastitis screening procedure at calving.

CLEAN (and dry)!!: Since germs cause mastitis and have to get on and into the teat, minimizing germ loads in transition and fresh cow areas is a must. Bedding here should be the cleanest, driest possible. Hot, humid weather tends to make bedding wetter and grow germs faster, so more frequent cleaning and bedding may be needed. Also, make sure alleys are scraped more often to decrease contamination from feet (dirty feet makes dirty bedding)! Decreasing germs gives greatest chance for success!

SCREEN: Having an active **fresh cow CMT monitoring system** in place (and appropriately interpreting it to make proper decisions) is the key to know if your transition mastitis control is working and separate that from problems that may occur after calving and result in later mastitis or a high SCC on first DHI test. **Using a CMT will make you \$\$\$\$\$!**

- **It takes time and money and I thought all fresh cows and heifers have high SCC so why run a CMT?** This is an old, false tale. In well managed herds, > 80-90% of animals and quarters can be CMT – (low SCC) on day of calving or certainly within 2-3 days. This is the best way to show yourself that you can freshen animals without mastitis and that your pre-fresh mastitis prevention strategies are working. Plus the test is simple and easy to run, takes < 1 min., and costs pennies. Great investment for fresh cows and heifers! **So run the CMT religiously!**
- **What scale should I use (neg, trace, 1, 2, 3) as there are different degrees of gelled milk (SCC)?** For fresh cows, the best results are to classify as no gelling or gelling. This gives the best accuracy and is much easier. You may want to mark really thick gelled samples (hardly move in the paddle) as they are more apt to be infected / show a future clinical problem.
- **What does a negative CMT mean? UNINFECTED and no mastitis (95+% accurate!).** Use this to monitor prevention. You should see lots of animals with negative CMT! This is your pat on the back! It shows you've prevented mastitis problems at calving!
- **What does a positive CMT (CMT+ or gelled) tell you?** It tells you the animal has a high SCC and has sent somatic cells to the udder to fight or ward off a conflict (infection)!
- **Does a CMT + mean they are infected?** Not necessarily at that moment. Most animals get germs on and in their teats prior to calving as teats shorten and swell, and sometimes leak. The animal uses her SCC to ward off that infection and stay healthy. **50-60% of the**

time the animal is CMT + after calving, they have already cured the infection (SCC drop in < 2 days)!

- **Does CMT pick up infected animals?** Yes, on **calving day** 70-75% of infections will gel the CMT paddle. **By day 3 post calving**, CMT picks up 85%?
- **When should I run the CMT?** I recommend day of calving. It may be slightly less accurate than day 3 post calving (a few more false positives or cured cows with high CMT) but it allows seeing problems earlier. It also works on colostrum (stir with finger).
- **What should I do when I see a CMT + animal?** **First, use it to monitor prevention.** Especially if you see a group of high SCC animals, turn your attention to transition cows/ lots and evaluate prevention! Make sure to avoid problems in the next group. **Second, mark the cow so everyone is aware this cow has a high SCC and can get special attention** (watch at feedbunk, milkout properly). Most times, TLC works! **Finally, consider treatment if the cow is clinical or you know she is infected (culture early). Make sure it's a germ where treatment will be cost effective!** Again, many CMT + are cured so treatment cost w/ no return and a lot of risk (antibiotics).

TURN DOWN THE HEAT: You've kept the animals as clean as possible, yet your CMT screening still shows problems. How can this be? The other side of disease is your immunity and a few germs can go a long way if your immunity is depressed. Keys to enhanced immunity are providing conditions that maximize animal comfort and dry matter intake and minimize other outside stressors.

A major stressor for these animals is **heat stress**. We often times don't think about them because they aren't milking so we don't see the production loss. Take a step back and think about these cows though. First, they are a mini inferno already as that late pregnancy fetus is growing fast and producing a lot of heat. Couple this to external heat stress and we see larger decreases in dry matter intake, more body weight loss (or less gain), and decreased immunity. The end results are more fresh cow problems, but even if you avoid them, it's usually less milk and slower breed back because of the body weight loss. The key is to provide the best conditions for eating and drinking and then getting the animal to use those nutrients to feed the fetus and cow's immunity, not feed the fire or inferno. **So heat abatement (especially fans) for transition cows and heifers is A MUST. It's an investment you can't afford to be without!!** Properly placed fans should be enough most days. Some want to use sprinklers and that may be fine some days but water also increases mastitis risks so this must be carefully managed and monitored. **Cool cows are comfortable cows so make those transition cows and heifers comfortable by TURNING DOWN THE HEAT!**

CLEAN, SCREEN AND TURN DOWN THE HEAT (minimize stressors) is the key to fresh cow mastitis in summer and all year. Get a jump on it now and use your screening system (CMT) to prove you can make a difference! HAPPY SUMMER!