

Valleywide News



VALLEYWIDE VETERINARY SERVICES

The Case For Monthly Bulk Tank Cultures

Dr. Elizabeth Martens

The bulk tank milk culture is a powerful tool to make sure your herd doesn't become infected with any of the really bad mastitis bugs and allows you to do something about it before it affects SCC and mastitis case numbers. The main things we look for on a bulk tank culture are: Mycoplasma, Prototheca and Staph aureus. These are the big 3 contagious, non-treatable bacteria that can become a big problem if ignored. They can pop up suddenly even in 100% closed herds. The approach we take if a tank culture comes back positive for any of these is similar: don't panic, do a repeat tank sample a month later, and identify a rea-

sonable sized group of cows to sample that will give us the best chances of finding some of the culprit cows. We need to come up with a plan that meets the farm's goals and will actually work for the long term. Some farms sample all fresh or mastitis cows for all bacteria or only looking for specific bacteria. You can cut down cost if, for example, you are only interested in checking cows for staph aureus. Some farms submit only repeat mastitis cows or chronic high SCC. A cow with mastitis that clears up completely after treatment probably doesn't have any of these bacteria. The key is to always keep up with the monthly bulk



tank culture to keep tabs on the size of the problem (or lack thereof). It's ok to tolerate a few cows carrying these bacteria as long as you know who they are and they aren't spreading rapidly. If you wait until herd SCC is increasing due to a primarily contagious mastitis pathogen, 20% of your herd may already be infected. The cost of monthly bulk tank cultures is miniscule compared to the benefits of preventing contagious mastitis from affecting your bottom line.

Green Mountain Dairy Discussion Group

Lunch discussion meetings will be starting up again Thursday November 20th at noon in the Addison Fire Hall. Trent

Olson with ABS will discuss breeding strategies to manage heifer inventory. Lunch sponsored by ABS. Monthly

meetings will continue through April. We look forward to seeing everyone there!

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Supply Issues

****Please call for current status****

Calvary 9—125 dose
Ceftiflex—discontinued
Guardian
Coronavirus vaccine
Penicillin
Polyflex/Ampicillin
Oxytet 200 & 300
Furosemide 100mL
Valbazen 500mL
Toxiban
Blue/Green Hobbles—discontinued

Managing Mycoplasma on Vermont Dairies

Dr. Elizabeth Martens

Mycoplasma bovis was first found on a California dairy 60 years ago and is now recognized worldwide as one of the most difficult bacteria to deal with on dairy farms. Addison county herds are no exception. *Mycoplasma* causes chronic disease (pneumonia, ear infections, arthritis and mastitis) and also plays a role in acute calfhood pneumonia as part of the Bovine Respiratory Disease (BRD) Complex.

The 2022 NAHMS survey reported that 21.4% of large herds had mycoplasma positive cows and by 2025 that number is likely even higher. If you are unsure if your herd has mycoplasma, the best way to find out is to have monthly bulk tank cultures run and have a veterinarian necropsy several calves that died from pneumonia. If you have animals on your farm

with head tilts or ear infections that eventually drain pus, that is almost certainly *Mycoplasma*. Risk factors for a farm developing *Mycoplasma* are: group raising calves, shared water or nipples among calves, contact between sick and healthy calves in a barn, and having heifers raised off farm.

On farms with *Mycoplasma* present, almost 100% of calves are at least transiently infected. Some calves become acutely ill while others clear the infection and still others become chronic carriers who spread the bacteria via respiratory secretions to their herd mates, including the milking herd when they freshen.

“Disease from *Mycoplasma* can be significantly reduced by getting all the basics of calf care right.”

Mycoplasma has several characteristics that make antibiotics not particularly effective – they lack a cell wall which is the target of ceftiofurs, ampicillin and penicillin. They have a unique way of replicating genetic material which gets around the tetracycline mode of action. This makes all of those antibiotics completely ineffective against mycoplasma. It is not possible to test a farm’s mycoplasma strain to determine antibiotic susceptibility either. Draxxin, Nuflor and Baytril are options with some efficacy, though resistance genes are already evolving.

Much needed vaccines are being researched and developed, but there are still no products on the market with very good data. We will watch this closely, but one of the factors that makes *Mycoplasma* tricky is that it can mutate and change very quickly. Some earlier work with vaccines for mycoplasma actually made disease worse in exposed calves, so we need to be very careful recommending new products and wait to see valid research.

At the risk of this article being pure *Mycoplasma* gloom and doom – there is some good news. Disease from *Mycoplasma* can be significantly reduced by getting all the basics of calf care right. Spread calves out, providing at least 35 square feet of space per calf. If you group calves, keep group size 15 or less. Make sure nutrition, ventilation and colostrum are all done well. Sick youngstock should have an isolated hospital area away from their group and under no circumstances should they be held back to infect a younger group of calves. Whatever you would do for your kid’s favorite show calf—do that for everyone, and the effects of *Mycoplasma* will be significantly reduced.

