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On-Farm Milk Culturing

With winter around the corner, mastitis might not be the first thing on your mind but this slower time of the year is a great opportunity to get set up and learn how to culture your own mastitis samples on-farm!

Culturing cows with clinical mastitis or recent high SCC counts make treatment decisions much easier and decrease the number of cows treated unnecessarily. Depending on which mastitis pathogens you have on your farm, routine culturing can cut down on the number of animals you treat by 50%! It can also guide us in determining which antibiotics should be used on individual animals and how long they should be treated. Some bacteria respond very well to traditional 2-day intramammary treatment while others require 5+ days to prevent recurrence. Additionally, understanding what mastitis pathogens you have at a herd level can help guide prevention strategies like herd vaccinations and milking protocols.

One of the biggest challenges with mastitis culturing is the amount of time it takes to get a laboratory result back. Studies have shown that leaving a clinical case of mastitis untreated for 24hrs does not change treatment success rates but getting that 24hr turnaround time can be very difficult. With a culturing system on-farm, a 24hr period is very achievable.

Setting up an on-farm milk culture lab is easy and inexpensive. The initial cost of a basic incubator is around \$100.00 and ongoing supplies run about \$13.00 per sample. The savings add up when compared to the \$37.00 per sample it costs to send a milk culture to the Animal Health Lab in Guelph.

How On-Farm Milk Culturing Works

- 1) Sterile milk samples are plated on a triplate with 3 different areas that each grow different types of bacteria
- 2) The triplate is placed into an incubator for 24hrs
- 3) After 24hrs, the plate is examined
- 4) Based on which sections of the plate have grown bacteria and what the bacterial colonies look like, we can determine which type of bacteria has caused the mastitis
- 5) This identification will guide our decision to treat or not, which treatment should be used, and for how long



If you are interested in setting up an on-farm milk culture lab or would like more information, contact our office or talk to your herd veterinarian. We can provide the supplies needed, set up an on-farm training session and provide you with resources to help with bacterial identification and treatment strategies.