



## Individual Mastitis Detection: Milk Culture v PCR.

Mondovi Veterinary Service offers in-house milk culture for mastitis samples. We utilize a simple but effective plate culturing system to rapidly identify bacteria present and report that information back to the farm along with treatment recommendations.

Samples should be collected aseptically on the farm and frozen until you can drop them off at the clinic or one of our veterinarians can pick them up. *Once the sample is received, preliminary results are available within 24 hours and a final results along with treatment recommendations are complete within 48 hours.*

Another testing option for mastitis is to perform individual PCR testing on the milk sample. The PCR test detects bacteria present in the sample by looking for bacterial DNA. Results will indicate the presence of any bacteria (both living or dead) in the sample - although this is helpful if a single bacteria is identified, when multiple pathogens are present it more difficult to interpret what might have been a contaminant vs. the true cause of mastitis. It becomes even more difficult to interpret when used for bulk tank cultures. PCR testing is useful when looking for contagious mastitis agents which can only live in a cow's udder (staphylococcus aureus, streptococcus agalactiae, and mycoplasma sp.). When offered, this option is typically far more expensive than the bacterial culture option offered at Mondovi Veterinary Service.

### **Cost Comparison:**

- MVS Culture: \$8/sample
- Creamery PCR: Upward of \$25/sample.

### **Sample Collection:**

- Label your milk sample tube with individual cow ID and which quarter you're sampling.
- Obtain sample by prepping the teats as you would to milk, making sure they are thoroughly dried.
- Discard the first 3-4 streams of milk and collect your sample by directing the stream of milk into the tube carefully, so to avoid contaminating tube with hair, dirt, debris, etc.

### **Sample Storage:**

- DO NOT store at room temperature for more than 1 hour OR refrigerate for greater than 1 day.
- It is usually easiest to *freeze samples* until they can be dropped off at the clinic or picked up when a veterinarian is on farm.