

PCR TESTING FOR MASTITIS

Eastern Laboratory Services (ELS) can help dairy producers manage their herds by providing the most accurate, timely and cost-effective dairy diagnostic and analytical services in the industry.



ELS is now offering Polymerase chain reaction (PCR) testing for mastitis detection. PCR testing is a technique that uses DNA to detect specific types of bacteria. It can be used with individual cow or bulk tank milk samples to find the presence of mastitis-causing bacterial types. Samples can be fresh, frozen or preserved. Milk samples can be sent with your milk truck driver or shipped directly to ELS.

Why is PCR testing better than culturing?

- Contaminated samples are less of a problem since the pathogenic bacteria can still be detected even with contamination.
- In bulk tanks, PCR can identify even low levels of contagious bacteria. Pathogens such as *Staph. aureus* shed bacteria intermittently. DNA-based methods, such as PCR, can detect the presence of these pathogens even when they are already dead or at very low levels.
- PCR is quicker at *Mycoplasma* testing and better at detection. Besides being difficult to culture, a *Mycoplasma* culture can take between 7-14 days. Samples can also be pooled to save money.
- PCR includes a test for the B-lactamase gene. Bacteria possessing the B-lactamase gene are resistant to many common mastitis drugs. This can help your veterinarian make better treatment decisions and not waste antibiotics on resistant bacteria.

PCR tests for

- *Staphylococcus aureus*
- *Staphylococcus species*
- *Streptococcus agalactiae*
- *Streptococcus dysgalactiae*
- *Streptococcus uberis*
- *Enterococcus faecalis & faecium*
- *Klebsiella pneumoniae & oxytoca*
- *Arcanobacterium pyogenes and Peptostreptococcus indolicus*
- *Escherichia coli*
- *Corynebacterium bovis*
- *Serratia marcescens*
- *Mycoplasma bovis*
- *Mycoplasma species*
- Yeast
- *Prototheca species*