

TESTING STRATEGIES... for effective mastitis management

Bulk Tank or Group Surveillance



Bulk tank or group testing is a convenient and economical way to evaluate herds or groups on an ongoing basis. It establishes a baseline for comparison and provides a rapid alert in the case of mastitis outbreak.

Enhanced sensitivity of DNA testing enables detection of mastitis causing organisms in dilute samples. Results are quantitative, and individual values can be compared to historical DNA values. Significant changes in DNA levels

direct control efforts to organisms of greatest concern.

Best used to monitor infection status in herds and provide baseline levels for interpretation of individual animal testing results.

High Somatic Cell Count (SCC)



Targeting high SCC cows for mastitis testing focuses effort on infected cows. Paired with DHI testing, DNA analysis identifies organism(s) without additional sampling. Once identified, infections can be treated or managed with established protocols to reduce bulk tank SCC.

Improved detection and consideration of both SCC values and DNA test results assist in interpretation. Results from multiple animals

above SCC thresholds can effectively differentiate causative versus secondary organisms.

Best used in herds in the midst of mastitis outbreaks, or those coping with significant, ongoing issues. Targeted method reduces expense while making progress on mastitis control.

Hospital Pen



Cows that are clinical for mastitis often get sent to the hospital pen and treated before the extent or cause of their mastitis is known. Once treated, use of culture to monitor organism levels is compromised by residual antibiotics. DNA testing allows continued testing to help monitor ongoing clinical cases of mastitis.

Improved sensitivity of DNA testing does not require healthy organisms for detection, and can be valuable to know when infections

have been cleared and cows are ready to return to the milking string. The Complete 16 Test detects a variety of organisms, increasing the probability of identifying causes and facilitating the appropriate choice of treatment and management.

Best used in herds with significant, ongoing mastitis issues, and in cows previously treated with antibiotics to determine if infection has been effectively cleared.

Fresh Cow



Fresh cow testing concentrates detection efforts on animals that, as a result of immunosuppression during calving, are at greatest risk of mastitis infection and contaminating the milking herd.

Speed of DNA testing allows detection and management prior to moving to the milking string to limit transmission.

Enhanced sensitivity allows pooling to

reduce costs. Versatility of the test enables identification of all major mastitis-causing organisms in one assay.

Best used in herds with a high incidence of new mastitis infections at freshening. Test individual or pooled samples. Submit frozen or preserved samples at your convenience.

DNA TESTING for mastitis detection works in ways culture can't.

Fast

- Identifies organisms in as little as 24 hours. No culturing required.

Flexible

- Test fresh, frozen or preserved milk from treated or untreated cows.

Convenient

- Reduces labor when used on routinely collected DHI samples.

Improved Detection

- Superior sensitivity detects dead and dying organisms that yield "no growth".

Versatile

- **Contagious 3 Test** detects most common 'contagious' pathogens, specifically *Mycoplasma bovis*, *Strep. agalactiae* and *Staph. aureus*.
- **Complete 16 Test** detects both contagious and environmental organisms that cause over 95% of mastitis cases.

CAN YOU AFFORD not to use DNA-based mastitis testing?

Mastitis causes more than \$2 billion in production losses to the U.S dairy industry each year. On a per cow basis, the cost is about \$170 when you factor in lost production, treatment and labor.

Traditional mastitis testing is subject to challenges that are eliminated with DNA-based testing. The benefits of **DNA-based Mastitis Testing are many.**

- Overall costs of a detection program can be reduced. High sensitivity makes use of pooled samples (5:1) feasible.
- One sample/one test reduces the variety of culture tests needed to identify multiple pathogens.
- Convenience of testing DHI samples saves time and labor.
- The Complete 16 Mastitis Test provides additional information enabling more selective use of antibiotics for treatment.