

Staph ID *Factsheet*

Healthy cows, quality milk



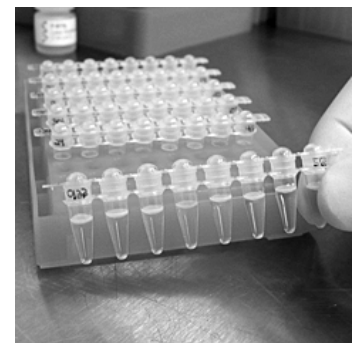
Testing for Mastitis using the DHI milk sample

The new Staph ID test, which identifies the presence of *Staphylococcus aureus* (Staph. aureus), mastitis pathogen can be done using the same milk sample currently collected by DHI. This new test is based on polymerase chain reaction (PCR) technology.

What is PCR?

PCR is a technique widely used in molecular biology which detects small amounts of a particular sequence of DNA. PCR technology has been a major scientific advance and an important tool for many kinds of basic research, and for diagnosis of human and animal diseases. Because of its high sensitivity, PCR permits detection soon after infection, often even before the onset of disease and is also more likely to detect the bacteria when it is at a low shedding phase.

Specific to mastitis, the new Staph ID PCR test identifies the presence of Staph. aureus bacteria DNA in the milk sample. The test does not rely on the ability of the bacteria to grow (i.e. culture) in a lab environment and will identify the presence of the target DNA, even if the bacteria is dead, hence the ability to use the preserved DHI sample. This is a major advancement in mastitis testing considering that a high percentage of samples submitted from clinical cows show 'no growth' in traditional culturing.



The Staph ID test has been validated for use in raw and preserved metered milk samples. Using this test with DHI samples is extremely convenient and can be integrated with routine somatic cell count (SCC) monitoring. In addition to convenience, rapid turn around of results (3 to 4 hours), high test reliability, enhanced results reporting, including already captured DHI cow information (SCC history, milk production level, etc), and the ability to have high SCC cows immediately tested, provides many benefits.

Testing Options and Results

Producers have the ability to test:

1. *The entire herd*
2. *Selected cows, such as newly purchased cows, or cows displaying clinical signs of mastitis, and/or*
3. *Cows that exceed a certain producer selected SCC level, where those samples will be redirected from the SCC analyzer to the Staph ID test.*

The test is quantitative and positive results are reported as: **Low, Moderate, High** presence of the Staph. aureus bacteria. In addition, valuable information about each cow (DIM, SCC, milk production, etc), is displayed on the easy to read report.

Producers should work closely with their veterinarian to design mastitis best management practices, determine a testing plan for their herd, test results interpretation and implementation of an action plan for test positive cows.