

## From sample to results in four hours

The DNA Mastitis Test is a revolutionary test for identifying all the main mastitis causing bacteria from bovine milk samples without any bacterial culturing steps.

The results are obtained in just 4 hours, with only two hours of hands-on time.

As conventional bacterial culturing routinely take up to 48 hours and up-to 7 days for Mycoplasma.

The DNA Mastitis Test gives significant time savings in mastitis testing.

### Different sample types

The Proof Mastitis Test can be used for:

- Testing selected cows
- Bulk tank milk samples.  
Testing bulk tank milk samples is an efficient way to screen the entire herd for contagious mastitis bacteria such as:  
*Streptococcus agalactiae* and  
*Mycoplasma*

**The test may be done using the same milk sample that DHIA collects**

### Advantages

- No bacterial culturing required
- Accurate identification of all major mastitis causing pathogens
- Can be used on treated cows
- High sensitivity even for samples that show “no growth” in culture
- Suitable for preserved milk samples
- Samples can be shipped at room temperature

### Sensitive and accurate results

In addition to identifying viable mastitis bacteria, the DNA Mastitis Test also detects growth-inhibited micro-organisms. This is a major advantage compared to the conventional bacterial culture method, where up to 40 % of “no growth” results are a problem for laboratories, veterinarians and dairy producers.

The DNA Mastitis Test simultaneously detects all of the targeted bacterial species present in the milk sample, overcoming the common problem of ‘mixed growth’ results of bacterial culturing. Making it the most accurate mastitis test available.

### Results interpretation and reporting made easy

The DNA Mastitis Test Software performs automated interpretation and reporting of the results obtained using the assay. Unlike with identification of bacteria from culture plates, all users of the DNA Mastitis Test can now reach the same very high level of accuracy.

The results are easy to understand:

Sample	S. aureus	Str. uberis	E.coli
123	-	+	-
124	+	+	-
125	+	-	-
126	-	+	-
127	-	-	-

# DNA Mastitis Testing

## Major-3 identifies:

Cost: \$22 per sample

1. *Mycoplasma bovis*
2. *Staphylococcus aureus*
3. *Streptococcus agalactiae*

## Full Panel Assay identifies:

Cost: \$27 per sample

1. *Staphylococcus aureus*
2. *Staphylococcus sp.* (including all major coagulase negative staphylococci)
3. *Streptococcus agalactiae*
4. *Streptococcus dysgalactiae*
5. *Streptococcus uberis*
6. *Escherichia coli*
7. *Enterococcus sp.* (including *E. faecalis* and *E. faecium*)
8. *Klebsiella sp.* (including *K. oxytoca* and *K. pneumoniae*)
9. *Serratia marcescens*
10. *Corynebacterium bovis*
11. *Arcanobacter pyogenes* and *Peptoniphilus (Peptostreptococcus) indolicus*
12. *Staphylococcal  $\beta$ -lactamase gene (penicillin resistance gene)*

## How do you get started?

If you are interested in DNA Mastitis Testing, talk to your Field Representative on your next test day. Tell them which cow you want to sample and if you want the Major 3 or the Full Panel (All).

For any special requests such as pooling samples or selection after SCC testing please contact the lab to check availability.

Zumbrota DHIA Laboratory 507-732-5880  
Stearns DHIA Laboratory 1-800-369-2697

## DNA Mastitis Test Around the World: What Others Have Said

“Sample collection for mastitis testing has always been time consuming and inconvenient which means it often didn’t get done. The fact that the DHI sample can now be used makes it incredibly convenient”.

- Richard Cantin, CanWest DHI, Canada

“This test will be of significant benefit in any farm mastitis control programme and hence to dairy farming in the UK.”

- Paul Burr, Biobest Laboratories Ltd, UK

For more information, visit <http://diagnostics.finnzymes.fi/pathoproof>

