



# Survey of bulk tank milk from all Danish dairy herds in 2009 and 2010 with real-time PCR

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## Introduction

Can real-time PCR of BTM be used as an indicator of udder infections in Danish dairy herds?

Can PCR detect *Str. agalactiae* (GBS) better than culture?

## Material and methods

4,258 BTM samples from 2009 were tested by PCR and culture for GBS. 4,093 BTM samples from 2010 were tested by PCR, and hereof positive herds for GBS were tested by culture.

Table 1

Bacteria/genes	% NoCt	Fractile10
<i>Staph. aureus</i>	9	29
<i>Staph. sp</i>	0	27
<i>E. coli</i>	39	30
<i>Str. agalactiae</i>	93	26
<i>Str. dys</i>	14	28
<i>Str. uberis</i>	5	26
<i>Klebsiella</i>	87	31

Table 2

Test for GBS	PCR	
Culture	Positive	Negative
Positive	178	20
Negative	132	3928

## Results

Results from PCR test of all 12 bacteria genes were distributed to farmers and advisers.

PCR results of BTM from 2009 showed NoCt reaction in BTM for *Str. uberis*, *S. aureus*, *E. coli* and GBS in respectively 5, 9, 39 and 93% of the herds (table 1).

PCR identified 53% more herds as GBS herds in 2009 (table 2).

Percentage GBS positive herds by PCR were reduced from 7.3 % in 2009 to 6.6% in 2010.

## Conclusion

PCR results of BTM samples were grouped as problems with contagious mastitis, environmental mastitis and milking hygiene.

The use of PCR results from BTM has been highly appreciated by farmers and advisers.

In 2009, PCR was found to be more sensitive

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**Our Milk**  
- a pure pleasure