

THE EFFECT OF SUCCESSFUL ADVICE ON THERMAL BACTERIA COUNT IN DANISH BULK MILK

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Abstract. *At Danish dairies, raw milk is not routinely analysed for thermo-resistant bacteria. Nevertheless, thermo-resistant bacteria are known to create serious problems, especially in cheese production. Since 2010 Arla Foods has screened for thermo-resistant bacteria among all of their milk producers (approx. 3500 farms) regularly and the results have showed high but fluctuating levels of thermo-resistant bacteria in raw milk. The objective of those screening has been to decrease the content of thermo-resistant bacteria in the raw milk without incorporating costly microbiological analyses.*

Every time the screening reveals farms with high count of thermo-resistant bacteria in the bulk milk (>1.000/mL) the farm has been contacted by a local milk quality advisors for telephone advising and most farms with >30.000/mL of thermal-resistant bacteria in the bulk milk has been visited for on farm advising. These contacts have revealed some major deviations, on farm level, from existing recommended management, hygiene practices, technical installations and milk storage.

The results indicate:

- *A higher risk for total bacteria count and for high content of thermo-resistant bacteria in Automatic Milking Systems (AMS) compared to conventional milking.*
- *Significant relationship between high total bacterial count and high thermo-resistant bacteria count.*
- *A majority of the installations had clearly visible bio-film various places such as in the receiver and the milk bulk tank.*
- *Faults in warm water supplies and dosage of detergents and disinfectant were frequently observed.*
- *Thermo-resistant bacteria were reduced from a mean count of 2084 in 2010 to 902 in 2014 after farm visits.*

The results, of those telephone contacts and on farm visits by expert milk quality advice, show that if a milk producer is contacted by a competent advisor it enables the producer to correct vital errors and thereby achieve a major reduction in thermo-resistant bacteria content of the bulk milk.

Key words: milk quality, advisory service, technical installations, milking equipment.