

LELY MQC-C

Milk quality sensor system



Somatic cell count data available on a daily basis



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innovators in agriculture

The first on-line somatic cell count measuring device in the world for robotic milking systems

Animal welfare and excellent milk quality are the keys to successful robotic milking. The more information we can retrieve from changes in the milk quality, the easier it is for dairy farmers to identify cows with potential problems. For this reason, Lely has already carried out many years of specific research on the detection of abnormalities in milk in robotic milking systems.





The T4C management system presents the somatic cell count per quarter in the applicable category.

In collaboration with the New Zealand-based company Sensortec, specialists in sensor systems, Lely has introduced the first on-line somatic cell count measuring device: Lely MQC-C. The main purpose for the development of this DNA-based analysis system is to provide the farmer up-to-date information on the somatic cell count of his cows.

Lely MQC-C milk quality sensor system is an additional tool to MQC and will provide quarter-based information on cell count. The analysis is based on a sample taken during the milking process. This sample is mixed together with a special reagent. This reagent is completely separate from the main milk flow, so that contamination is absolutely impossible.

The sample/reagent reaction causes a variation in the viscosity of the sample's mixture, dependent on the amount of DNA that stems from the somatic cells. This viscosity is measured and results in a direct somatic cell count (SCC) for that particular quarter, which is presented in the applicable category in the T4C management system. The theory behind the process builds on Whiteside's theory of gel formation from 1939 and Christ's 1962 theory on milk protein-based reactions.

For the dairy farmer, determining the on-line somatic cell count will be a huge advantage. Independently from the information available once a month from the

regular milk recording, you can now access essential data every day, which will enable you to monitor udder health much more effectively. Unlike the traditionally presented cell count figures, the MQC-C tool is able to determine the cell count on a quarter-based level, providing the possibility to exactly monitor the problem quarter. The results of the analysis are presented in the T4C management system in a conveniently manageable way; cell count classes from I-V on a quarter basis. The presentation of cell counts in classes ensures a quick overview while in addition it is easy to define attention values for sudden and chronic cases.

The decision as to which cows to monitor on a daily basis can be individually set in the T4C management programme. This feature gives you the possibility to monitor the cows more closely, e.g. after calving or treatment.

Data obtained from MQC-C are combined with colour and conductivity measurement data provided by MQC. The colour measurement provides additional information about visual abnormalities in the milk caused by e.g. mastitis, not unlike a milker who looks at the colour of the milk. These data are indicated on the checklists that are issued by the T4C management programme. This combination of highly useful data is a huge step forward in ensuring highly effective, automatic monitoring of udder health.



Live Life Lely

Since its establishment, Lely has always been committed to improving the quality of life of agricultural entrepreneurs as well as the future of the sector. In addition, the company is innovative in its products as well as its concepts for marketing and distribution.

- Lely is committed to helping farmers ahead of market developments
- Lely always supplies the most innovative products to farmers and contractors
- Lely provides customers with optimum customer service
- Everything Lely invents will always serve to make life easier for the benefit of both man and animal as well as providing joy to all our employees

In short: we at Lely do our work in order to serve farmers and to make their lives as enjoyable as possible. From grassland machinery to the automatic milking system, Lely thinks with the farmer and has offered him innovative solutions for the past 60 years.



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