

BACTOSCAN REDUCTION FOLLOWING A BULK TANK ANALYSIS MONITORING SCHEME IN ENGLAND

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A high level of bacteria in milk affects the dairy farmer both directly in the form of financial penalties and indirectly, through the production of a lower quality, reduced shelf life milk product that is less acceptable to the consumer and manufacturer. EU regulations require all milk for human consumption to have a TVC (Total Viable Count) of under 100,000/ml. In the UK, the TVC has been superseded by the Bactoscan test (Foss North America). The majority of dairy companies now penalise farmers with a Bactoscan over 40,000/ml which is equivalent to a TVC of 8,000/ml.

The author recommended that a dairy company involved in manufacturing and who wanted to improve milk quality introduce a monitoring scheme to try and improve Bactoscan results. The aim was to increase farmer awareness of problem areas relating to milk production.

Bulk milk samples were collected from all 150 dairy farmers supplying milk on a one off basis. The bulk tank was agitated for at least 2 minutes, the sample collected and sent to the lab in a refrigerated container to ensure the samples did not exceed 4°C. Samples were collected at varying times of the year, and problem herds were often tested again.

The following tests were carried out on the milk samples. These included a TVC, Coliform Count, Thermotolerant Count, Staph aureus Count, Psychrotroph Indicator and bacteriology. The methodology of the testing procedures will be described as there are no agreed international procedures.

The results were interpreted by the author and target figures were listed. There were three main areas of concern, a poor wash-up routine, poor pre-milking teat preparation and the presence of contagious mastitis organisms. The problem areas were clearly identified. Individual advice was not given but farmers with problems were all advised to take professional advice from their vet or dairy company.

This scheme is currently on going. To date the results have shown that 58% of herds had a wash up problem. 32% had a high level of environmental contamination indicating poor premilking preparation. 8% of herds had Strep agalactiae isolated from the bulk tank. 51% of herds had a raised Staph aureus count. This data has prompted farmers to take advice, even if their Bactoscan results were normal. The information on the contagious organisms Strep agalactiae and Staph aureus have prompted those with rising or high herd cell counts to seek veterinary advice to control and reduce the level of infection within the herd.

Data is awaited from the dairy company to show that the average Bactoscan results have fallen significantly as a result of this monitoring scheme.