
Food Surveillance of Raw Milk

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RawMilk.org

As a result of Ministers agreeing in 1993 to review the continued sale of raw cows' milk in England & Wales, the Steering Group on the Microbiological Safety of Food approved a survey to be carried out to measure the hygienic quality of that retailed in these countries and to establish the prevalence of putative pathogens.

The main aim of this survey was to determine total viable count and counts of coliform bacteria (namely, *Escherichia coli*, *Listeria* spp. and *Staphylococcus aureus*) in containers of raw milk, along with levels of contamination with *Campylobacter* spp., *E. coli* 0157, *Listeria monocytogenes* and *Salmonella* spp.. A second objective was to investigate factors which may affect the microbiological status of retailed raw milk (in particular, time of year, geographical location and size of producer in terms of volume of raw milk retailed).

In total, 1,675 samples were collected over a twelve-month period. Some 67% of the samples had a total viable count of less than 104 cfu/ml, and 71% gave a coliform count of less than 100 cfu/ml. *E. coli* and *S. aureus* were not detected in 43% and 93% of samples, respectively, and a species of *Listeria* (not *L. monocytogenes*) was isolated from 4% of samples. *L. monocytogenes* was isolated from 32 samples (1.9%). A species of *Salmonella* was isolated from just one sample; *Campylobacter* spp., along with *E. coli* 0157, were not detected in any of the samples examined.

Samples from sixty farms failed the phosphatase test, indicating the milk had undergone 'illegal' heat treatment.

The main conclusions of the study were:

- The overall microbiological quality of raw cows' milk retailed in England & Wales was good and that the prevalence of pathogens was low;
- There was no significant correlation between the presence of *L. monocytogenes* and the numbers of *E. coli* or *S. aureus*;
- Geographical location of the farms and producers size had no effect on the microbiological quality of the milk;
- Some retailers appear to be acting illegally by heat treating the milk and then selling it as untreated.

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