

STANDARD PLATE COUNT (SPC)

The Standard Plate Count is a measure of the number of bacteria in milk. This has a strong relationship with the keeping quality of the milk.

Where do these bacteria come from?

There are three main sources:

- The Udder: This would mainly include *Streptococcus agalactiae* and *Streptococcus uberis* as these bacteria are released in large numbers from infected quarters (100 000 000 organisms per cc of milk at peak infection !)
- The Teat Skin: This would involve two distinct groups of organisms. Those that live on the teat skin, such as CNS and some of the *Streptococci* and those that are on the teat skin because the environment is excessively dirty, such as coliform bacteria and the environmental *Streptococci*.
- The Machine: Temperature resistant bacteria such as some species of *Pseudomonas* will live in biofilms in the milking machine if cleaning is not effective. As milk passes through the pipes, these bacteria will contribute to the bulk tank bacterial load.

Very high numbers of bacteria will appear in the tank if refrigeration is slow or ineffective. Cooling must therefore also be taken into consideration.

Bulk tank culture can be used to localize the source of the problem in farms suffering high plate counts.