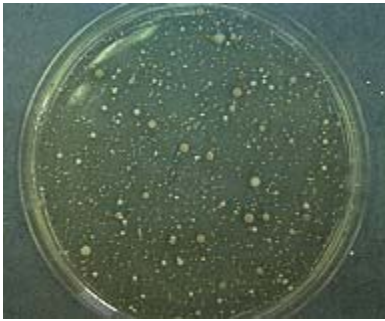


Standard Plate Count



The number of bacterial colonies which grow on a plate of bacterial growth media is used to calculate standard plate count.

The standard plate count (SPC) refers to a method of determining the concentration of bacteria in milk. An unscheduled monthly milk sample is drawn from the bulk tank by a certified Bulk Milk Grader. A small fraction of the sample is spread onto a plate of growth medium which allows any bacteria to multiply and form colonies. The SPC is calculated from the number of colonies formed after incubating the plate at 32 °C for 48 hours.

In Alberta, the Provincial Milk Quality Standard requires that the SPC does not exceed 50,000 bacteria per millilitre of milk. When the SPC is higher than this, it is in violation of the Standard, requiring that a second, 'official' sample be taken by an inspector from Alberta Agriculture's Dairy Quality Section. If the official sample exceeds the standard, a penalty may be deducted from the farm's milk cheque for the month. Repeat violations result in increasing deductions.

High standard plate counts generally result from one or a combination of the following:

- a herd-wide mastitis problem;
- poor milking routine hygiene;
- inefficient milking system cleaning;
- inadequate bulk tank cooling;
- a contaminated water source.