Methylene Blue Reduction Test

Increasing the number of bacterial flora will reduce the color of methylene blue more rapidly due to increasing consumption of oxygen. The speed of reduction of methylene blue color is directly proportional to the number of bacteria present in milk sample.

Aim: To determine quality of the milk

Procedure

1. Take 10 ml milk sample in test tube
2. Add 1 ml methylene blue
3. Keep the sample at 37°C until blue color disappeared
4. Record the result

Results:

The shorter the decolorization time, the higher the number of bacterial flora present in milk, and the poor quality of milk

Decolorization time	Result
30 min – 2 h	Poor quality
2 – 6 h	fair quality
6 – 8 h	good quality
Over 8 h	excellent quality

Conclusion: Sample which remain blue for longest time is of best quality

Source: https://www.youtube.com/watch?v=Bi65ou8oHxc