*Practical Exercise 16*

# Determination of specific gravity of milk by lactometer

**Objective:** *To study the solid not fat content in milk*

## Apparatus

Quevene's Lactometer

Lactometer Jar

Thermometer

*Lactometer*

*Lactometer jar*

*Glass thermometer*

*Milk sample bottle*

## Procedure

- Warm the milk sample to 40°C to 45°C and maintain at this temperature for 5 minutes.

- Mix the contents by rotating and inverting the bottle, taking care to avoid the formation of air bubbles and froth.
- Cool the sample to 15.5°C.
- Invert the sample bottle two or three times, pour enough milk into the lactometer jar taking care to avoid the formation of air bubbles, so that some milk overflows when the lactometer is inserted.
- Insert the lactometer gently to wet the stem not more than a short length, about 3 mm beyond the position of equilibrium. The lactometer should float freely and not touch the sides of the cylinder.
- Allow the lactometer to remain steady in the milk. Take the reading within about 30 seconds. Note the reading of the lactometer corresponding to the top of the meniscus on the stem without the error of parallax.

## Calculation of solids not fat

### Formula

$$SNF\% = \frac{CLR}{4} + 0.2 * F + 0.29$$

Where

CLR = Corrected lactometer reading. F = Fat Percentage.

## STUDY QUESTIONS

1. What is SNF?
2. Name the any one Apparatus used for determination of specific gravity of milk?
3. What is the use lactometer?
4. What is the formula for calculating the snf in milk?
5. What is the importance of lactometer jar in this practical?