

## Milk hygiene/ Practical

### Detection of antibiotic residues in raw milk

The presence of drug or antibiotic residues in milk due to treat infected dairy cattle is illegal. Antibiotic residue in milk may lead to:

1. Inhibition of dairy starter cultures used in the production of cheese and yoghurt
2. Severe allergic reactions in sensitive consumers
3. Development of bacteria resistance to antibiotics in human intestine

**Aim:** To detect of antibiotic residues in raw milk

#### Equipment:

1. Milk sample
2. Nutrient agar
3. Sensitive bacteria for all kinds of antibiotics (Geobacillus stearothermophilus)
4. Paper disks

#### Procedure

1. Prepare agar medium containing Geobacillus stearothermophilus
2. Dip the paper discs into the milk sample and place on the plate.
3. Incubate the plate for 24 h to 48 h at 37C°

#### Results

If there is antibiotic in the milk it will be inhibit growth of bacteria, produced a circle of inhibition around the disc

