Microorganisms in red meat ,chicken ,fish &egg

Meat is considered as an excellent growth media for a variety of M.Os due to many factors make it suitable for microbial growth & reproduction , such as :

1-elevated moisture.

2-presence of (CHO & nitrogen) compounds.

3-minerals.

4-approprite PH for growth the M.Os.

- The meat & its products contains microbial flora on its surface.
- M.Os inside the meat comes from many different sources.
- Muscles of the animal contain few of M.Os than surface but it increases after or during slaughter the animals.

Important microbes that contaminated of meat:

Bacteria ⟹ *Salmonella , Staphylococci , Streptococci, Micrococcus, Pseudomonas , Lactobacilli & Proteus.*

Molds ⟹ Mucor , Rhizopus, Cladosporium.

Fish meat

It is spoiled faster than red meat because of:

1) high moisture.

2) high PH.

3) lipids in fish oxidize faster than lipid in red meat.

4) the tissues of fish are softer & more disintegrate.

Important microbes that contaminate fish:

Pseudomonas,Vibrio,E.Coli,Lactobacilli,Salmonella,Clostridium.

Chicken

M.Os in chickens includes:

G+ Staphylococci, Streptococci, Lactobacillus, Clostridium.

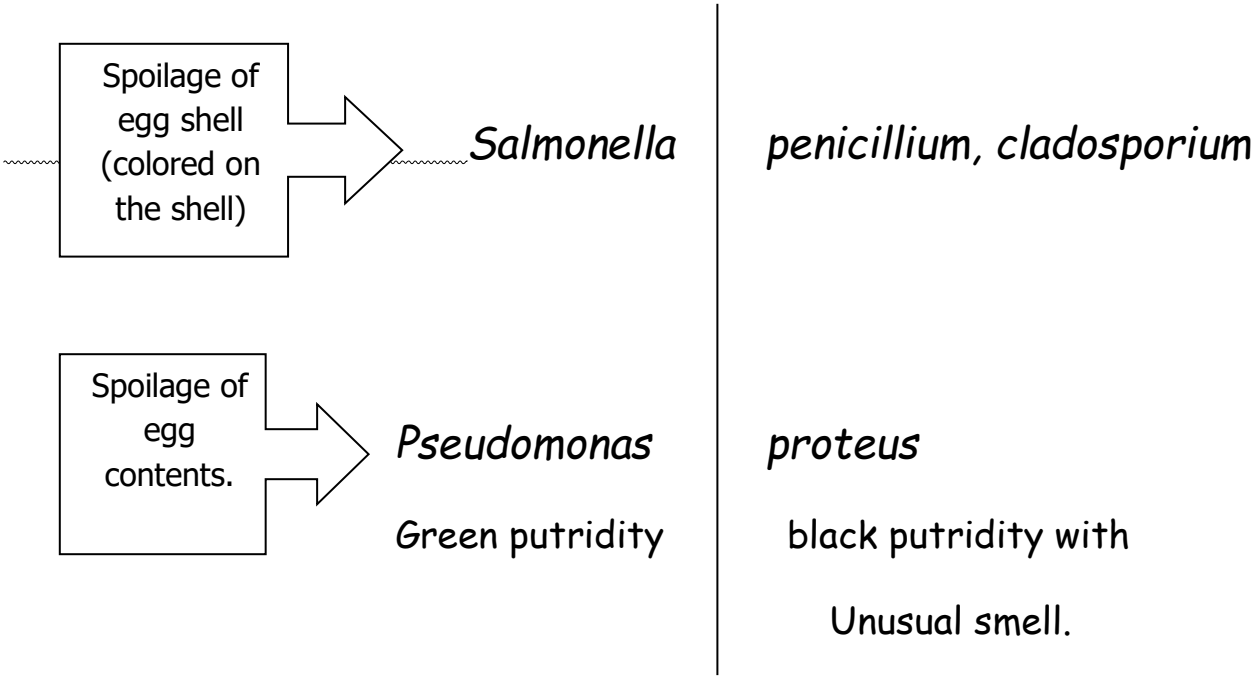
G- E.coli, Pseudomonas spp. , Salmonella spp.

Eggs

The eggs represents a perfect media for microbial growth because its contents of proteins , lipids& vitamins .

Note:- the sample taken wiping by swab from solid shell or biopsy of the liquid (albumen).

Important microbes that contaminate egg

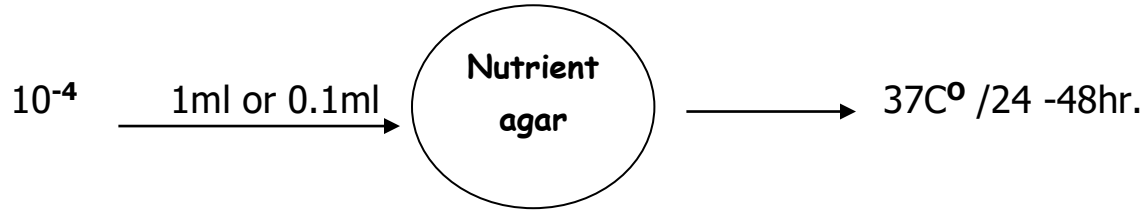


Lab work

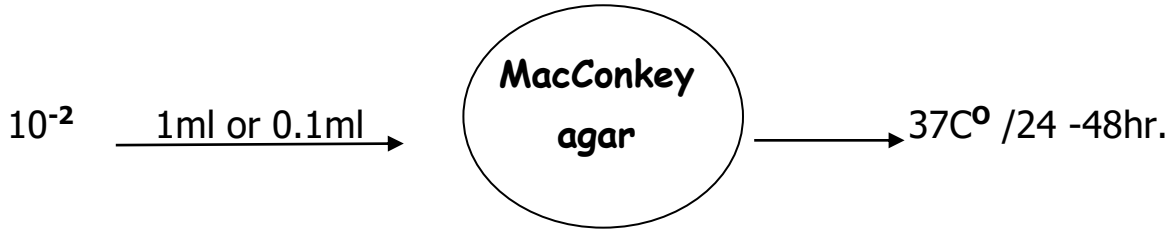
Procedure:

Samples taken from all parts of meat ⟶ mash to get a homogeneous mixture of these samples then taken 10 grams of this homogeneous mixture are transferred into sterile container, added to him dilution solution (90 ml of D.W + 1% peptone) to get the emulsion by mortar to give us a 10^{-1} .the mixture is left for 3-5 min just before making other dilution.

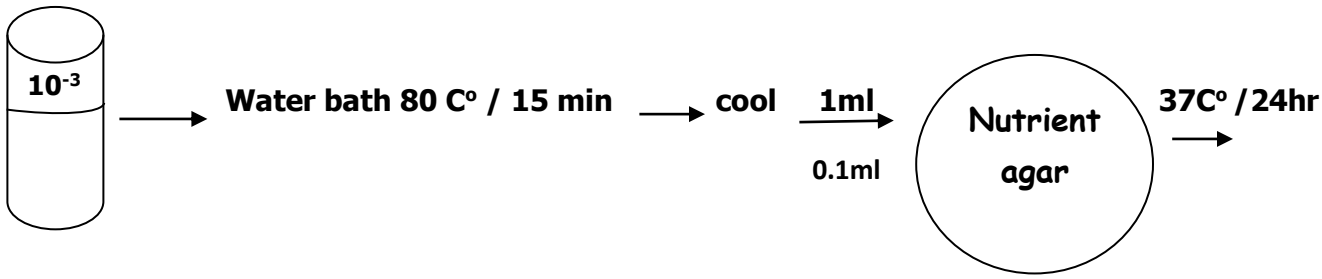
Nutrient Agar for General Growth (Aerobic Plate Count):



For the Coliform Bacteria Used:



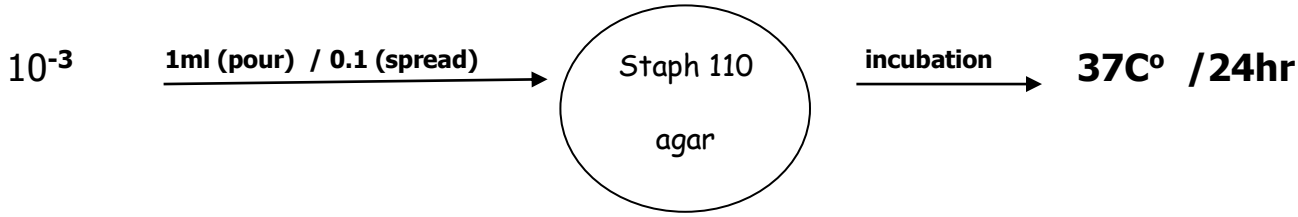
For the spore former used:



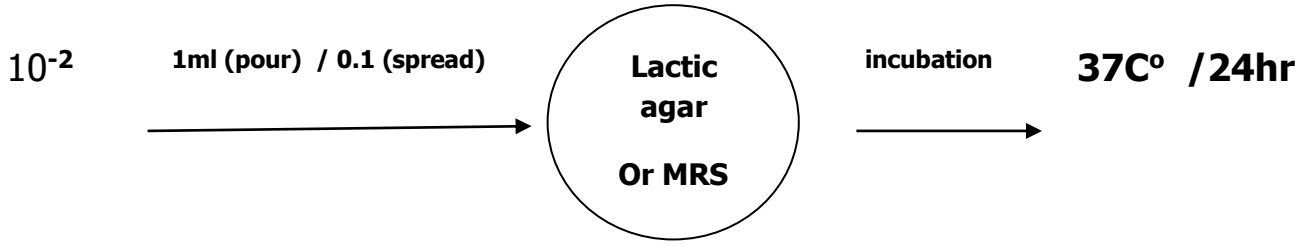
For the Lipolytic Bacteria:

For The Proteolytic Bacteria

For Staphylococcus SPP.

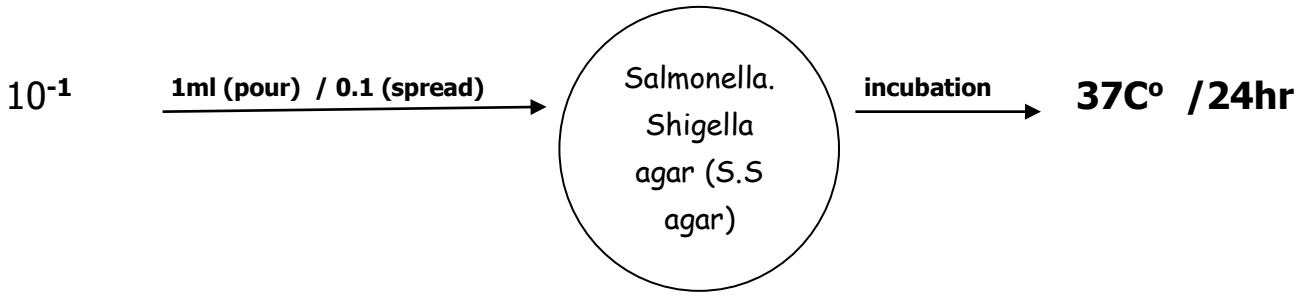


For Lactobacilli:



*MRS= De Man Rogosa and Sharpe

For Salmonella SPP.



Mold & Yeast