بسم الله الرحمن الرحيم

140 micro

Lab 2: Culture Media

Microorganisms need food to grow

- **Primary ingredients required by all living organisms include:**

  a carbon source, water, minerals, and

  a nitrogen source.

- **These nutrients together make a media.**
- **Different microbes need different amounts of these nutrients.**

Culture media may be found in one of three states:

- liquid (called broth).
- semi-solid.
- solid.

Aim

To prepare solid and Liquid media

Requirement

1) **Deffrent media :**

Nutreint broth - Nutrient agar - PDA/malt extract

Requirement

2- Balance

3- Distil water

5- Test tubes

6- Petri plates

7- Flaskes

7- Burners

8- Autoclave

Procedure

1- Weigh

2- Dissolve

3- Sterilize

4- cool

5- refrigerate till use

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2- Dissolve

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4- cool

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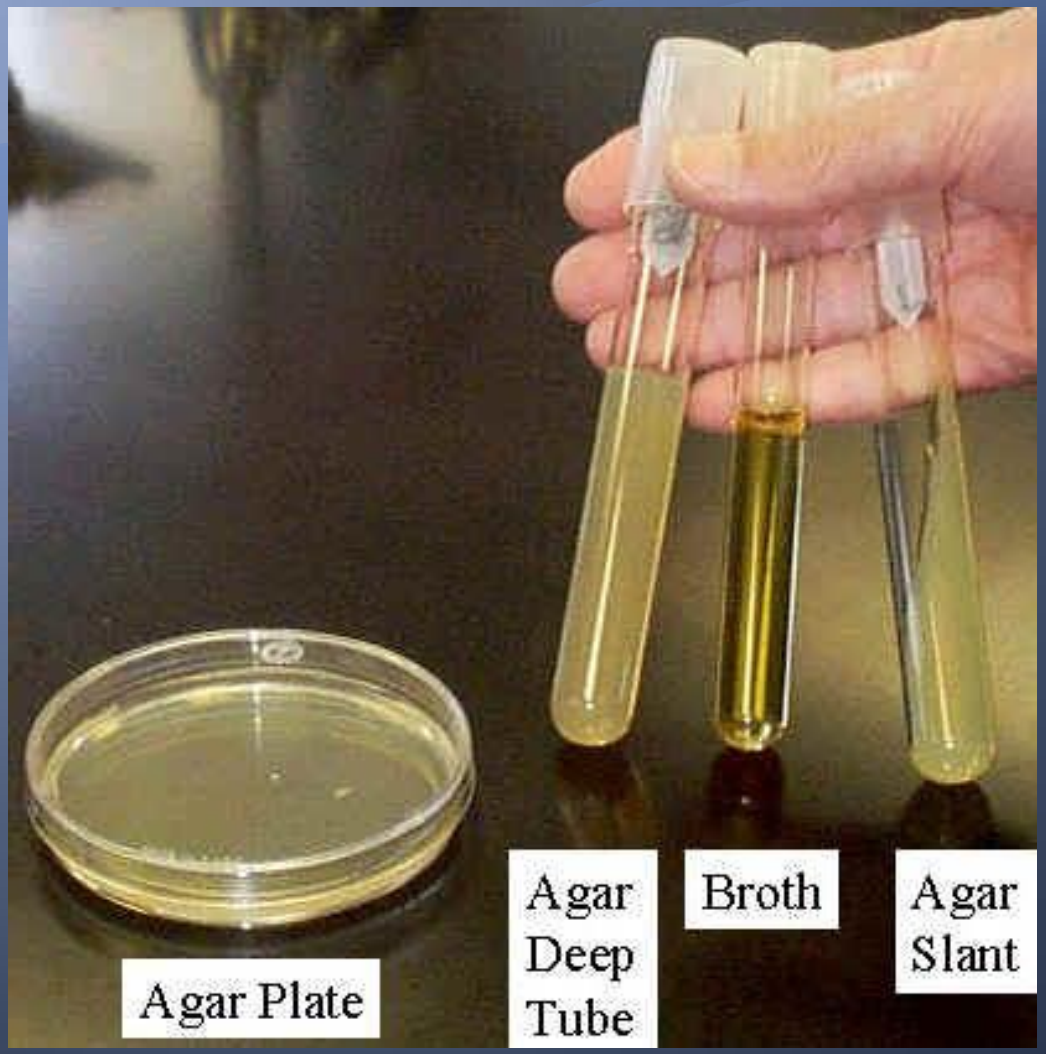
Who to make .....?



Pouring of Solid media

- **Petri plates :**
  - Remove the lid slightly
  - Pour the media near bunsen burner
  - Invert the plate
  - Write date and time on the sides of plates




- Making of Slants:

- After boiling, pour media in test tubes
- Autoclave
- Place in slant position till the media solidfys.

- Agar deep tube :

- After boiling, pour media in test tubes
- Autoclave
- Place in vertical position till the media solidfys.

Slant agar - Deep agar

-Making of test tubes with broth media :

- Place the testube near a burner and remove the cap
- Pour the media in the tube and close the cap at once
- Place the tube in upright position in the testube stand

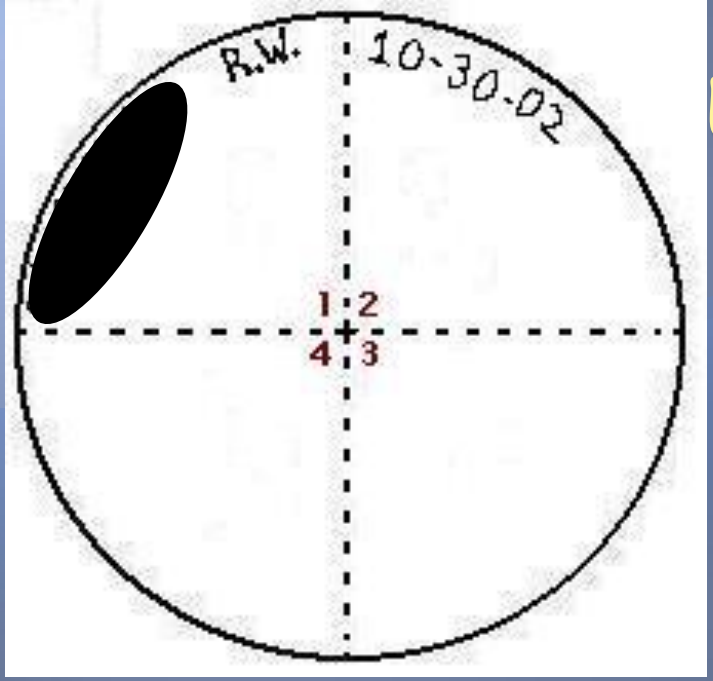
Isolation of Bacteria

- **Environmental Sample**

After agar in plate has cooled and set:

Label the Plates! Using a wax pen, divide the bottom (the part of the plate that contains the media)

Surface samples are normally taken using sterile swabs



Environmental sampling

Surface samples are normally taken using sterile swabs

Normal Flora Samples

- Important to remember that microbes are (everywhere)!
- We are inhabited (covered) by many different bacteria. .
- Most of the symbiotic relationships that we have with microbes are beneficial to both the microbe and us!
- In today's lab we will examine normal flora *(hand*.hair.skine)

.Applying oral sample to surface of agar

- **Sterilize the inoculating loop .**

The inoculating loop is sterilized by passing it at an angle through the flame of a gas burner until the entire length of the wire becomes orange

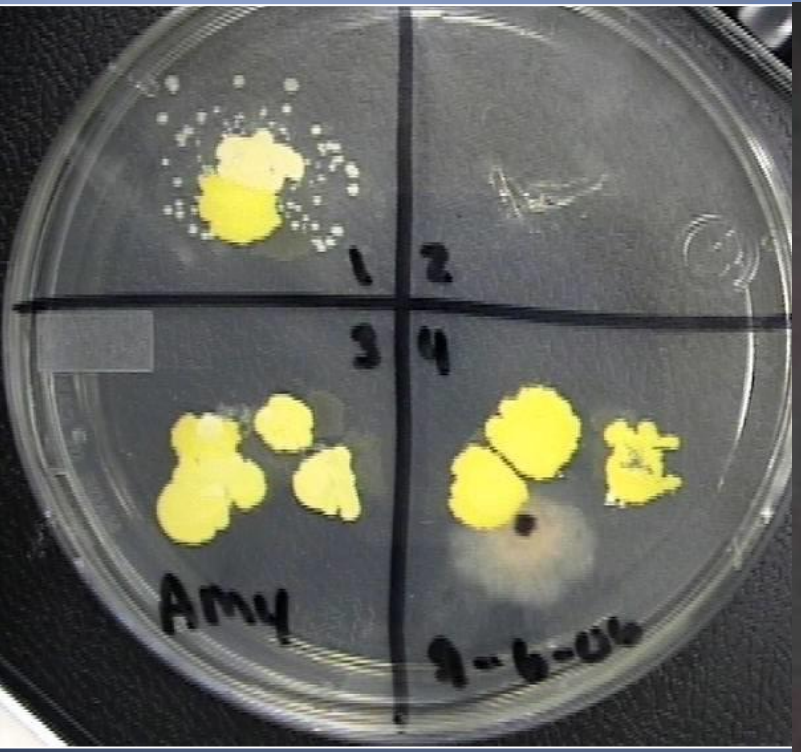
In this way all contaminants on the wire are incinerated .Never lay the loop down once it is sterilized or it may again become contaminated. Allow the loop to cool a few seconds to avoid killing the inoculum .

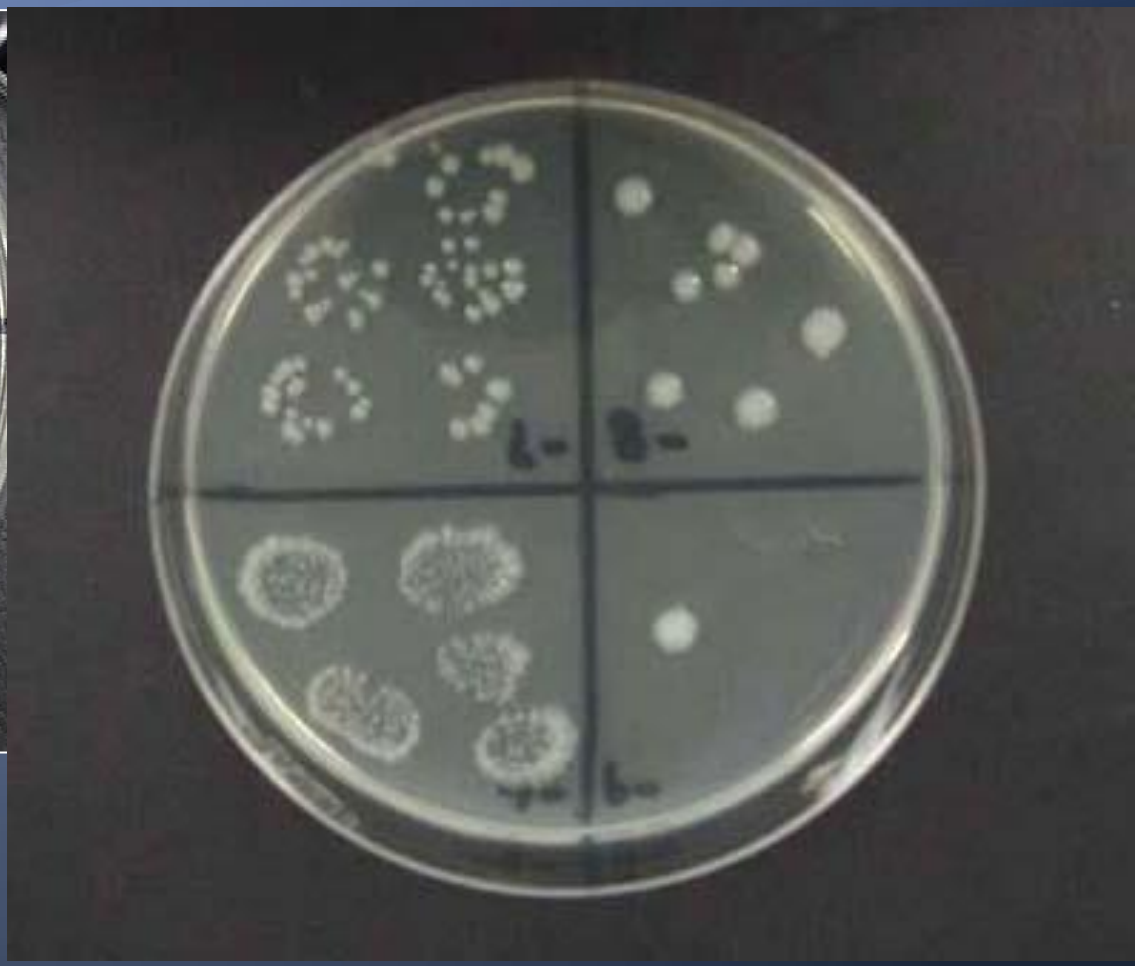
Agar plates are stored upside down to prevent condensation.

- Place all inoculated material in **incubator Culture tubes** should be stored **upright in plastic beakers**, while **Petri plates** should be **incubated upside-down** (lid on the bottom)

- These plates will be incubated at 37° C for 24 hours and then stored at refrigerater until next week when you will observe for results.

Typical environmental sampling results





Thank you ….