



# Lab. 3: Media Preparation.

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# 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

- ◆ **Broth (liquid).**
- ◆ **Semi-solid.**
- ◆ **Solid.**





# Aim

- To prepare the solid and broth media which contain the water and nutrients required for the growth of both bacteria and fungi.



# Material

## 1- Different Media:

- Nutrient Agar (NA).
- Nutrient Broth (NB).
- Potato Dextrose Agar (PDA).



## 2- Glassware:

(Test tubes, flasks).

## 3- Disposable petri plates.



## 4- Scale.

- 5- Distilled water
- 6- Bunsen burners
- 7- Autoclave



# Procedure

1 • Weigh



2 • Dissolve



3 • Sterilize



4 • Pour



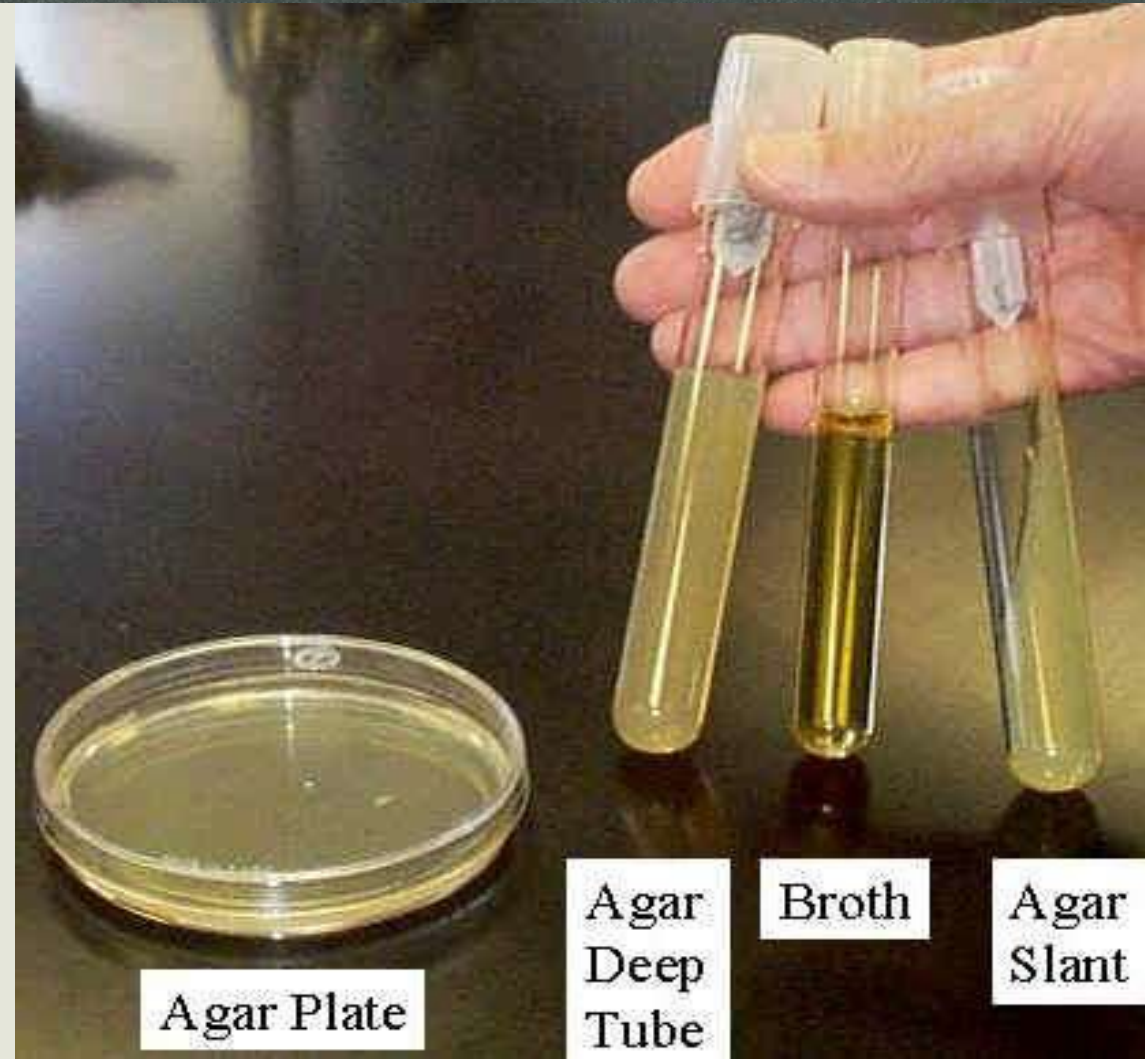
5 • Cool until use





# Different shapes of Media

**How could  
you prepare  
those types  
of Media?**



# A-Pouring of Solid Media: In petri plates:

1. Write date and time on the bottom of plates.
2. Remove the lid slightly.
3. Pour the media near Bunsen burner.
4. When solidify, invert the plate and store at 4°C.



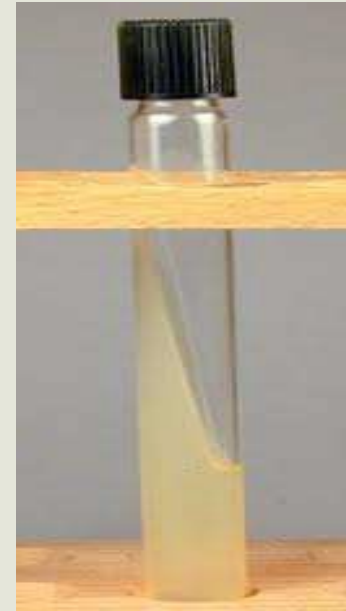


# B- Pouring of Solid Media: In tubes:

**For Agar media:**

**Slant Agar and / or Deep (Stab) Agar:**

- ◆ Write labels on tubes
- ◆ After dissolving, pour media in test tubes .
- ◆ Autoclave with loose caps.
- ◆ Place in **slant** or **vertical** position till the media solidifies.





*Slant agar*

Fill 1/3 tube

Deep agar

Fill 2/3 tube

## 2- Pouring of Solid Media: In tubes:

### For broth media:

- ◆ Place the test tube near a burner and remove the cap.
- ◆ Pour the media in the tube and close the cap at once then autoclave.
- ◆ Place the tube in upright position in the test tube stand.







**Thanks for listening!**

**For any question:  
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