



Department of biology



Department of biology

((Microbiology))

stage 2

Fourth lecture

Preparation of culture media

By

Msc. Zahraa Jawad Kadhim



Department of biology



What is Culture Media?

The media is a source of nutrients to support the growth of the micro-organisms in-vitro. The media helps in the growth and counting of microbial cells, selection of microorganisms, and survival of microorganisms. The culture medium can be liquid or gel.

Common ingredients of culture media:

- Peptone- source of carbon and nitrogen.
- Beef extract- source of amino acid, vitamins, minerals.
- Yeast extract- source of vitamin, carbon, nitrogen.
- Distilled water
- Agar- solidifying agent.

How to prepare culture media?

1. Weigh the amount of ingredients powder on weighing machine.
2. Dissolve the ingredients in distilled water.
3. Adjust PH of the medium if needed.
4. Add agar and boiled it to dissolve.
5. Pour the media into flask.
6. Autoclave the media when ingredients fully dissolve.
7. Sterilization is done in autoclave to prevent from contamination, at 121°C for 15 min at 15lbs.
8. After the autoclave place the media flask in laminar air flow.
9. Sterilize the laminar air flow with 70% alcohol.
10. A bit cools down the media and pours into sterile Petri-plates for solidification.
11. Then sample is ready to spread(spreaders) / streak



Department of biology



12. (Inoculation loop) on the medium for identification or isolation of microbes
13. Sealed the Petri plates with paraffin, label them.
14. Keep them inverted in incubator at 37°C for 24hrs.
15. Observe the result next day colonies formation is visible on the media.

Petri Dish A **petri dish** is a small shallow transparent dish with a lid that is mainly used in biological experiments for the culture of cells. For instance, in microbiological experiments, a Petri dish is used as a container to grow microbes with growth media in it. It is derived from the name of its inventor, German bacteriologist Julius Richard Petri. It is also called a Petri plate or culture plate.

