Microorganisms in fruits & vegetables

Some bacteria & molds may attack of fruits & vegetables during the growth of the plant, harvesting time ,transport ,storage & cause spoilage .

* If the M.Os , can penetrate the fruit or vegetables from outer layer (natural pores on its surface)---🡪 can grow quickly ,reproduce & spoiled the plants.
* M.Os can enter from water,soil,air.

 The important characters of spoilage by M.Os

Microbial Causative Agent Nature Of Spoilage

*Rhizopus*  cottony growth+ black spots.

*Erwinia* watery & bad odder .

*Coliforms, Lactobacillus* vegetable souring.

 *Penicillium* Bluish-green coloration.

 *Aspergillus niger* Black growth

**Lab work**

10 gm from Internal parts or external layer are transferred into sterile container, mash the contents with 90 ml of D.W 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.

General medium(aerobic plate count)

**Nutrient**

**agar**

The inner part 10**-2 1ml 37Co  24hrs**

The outer surface 10**-5**

**Lactic agar**

The inner part 10**-1 1ml 37CO  24hrs**

The outer surface 10**-3**

**Macconkey agar**

The inner part 10**-2 1ml 37Co/ 24hrs**

The outer surface 10**-3**

**Yeast extract agar**

The inner part 10**-1 1ml 37Co / 24hrs**

The outer surface 10**-2**