

Microorganisms in bread & cereal grains

The cereal include: rice, corn, wheat & starch.

**there are two factors which control on microbial growth & reproduction in cereal grains:*

- 1) *Moisture.*
- 2) *Storage temp.*

**the toxin production by fungi when the cereal stored in a moist place.*

The most important microbes which cause spoilage:

<i>Mold</i>	<i>Character of Spoilage</i>
<i>Penicillium</i>	<i>green growth</i>
<i>Mucor</i>	<i>white growth</i>
<i>Aspergillus niger</i>	<i>black growth</i>
<i>Rhizopus</i>	<i>white growth with black spots</i>

Bread microbial spoilage

Molds+ yeasts+ bacteria

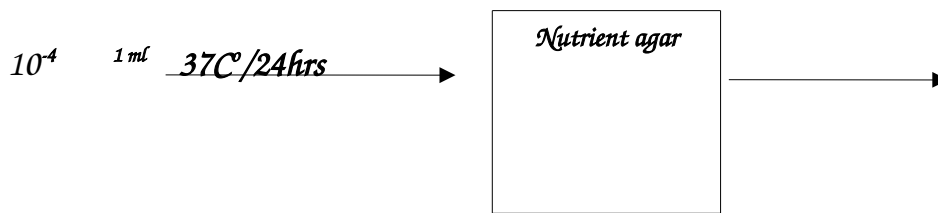
Food microbiology

If transfer from flour to dough when adding the water

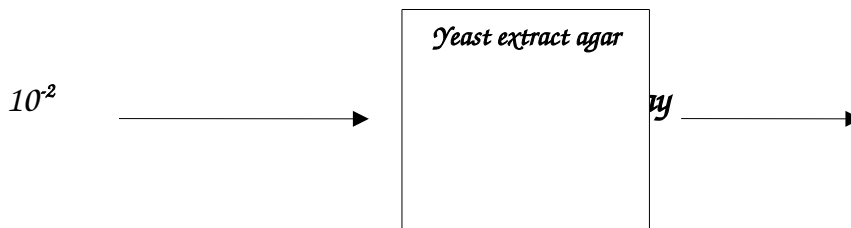
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Spores begin to grow

LABwork

General microbes (aerobic plate count)



Detection Of the molds & yeast



Detection Of spore-forming bacteria

