

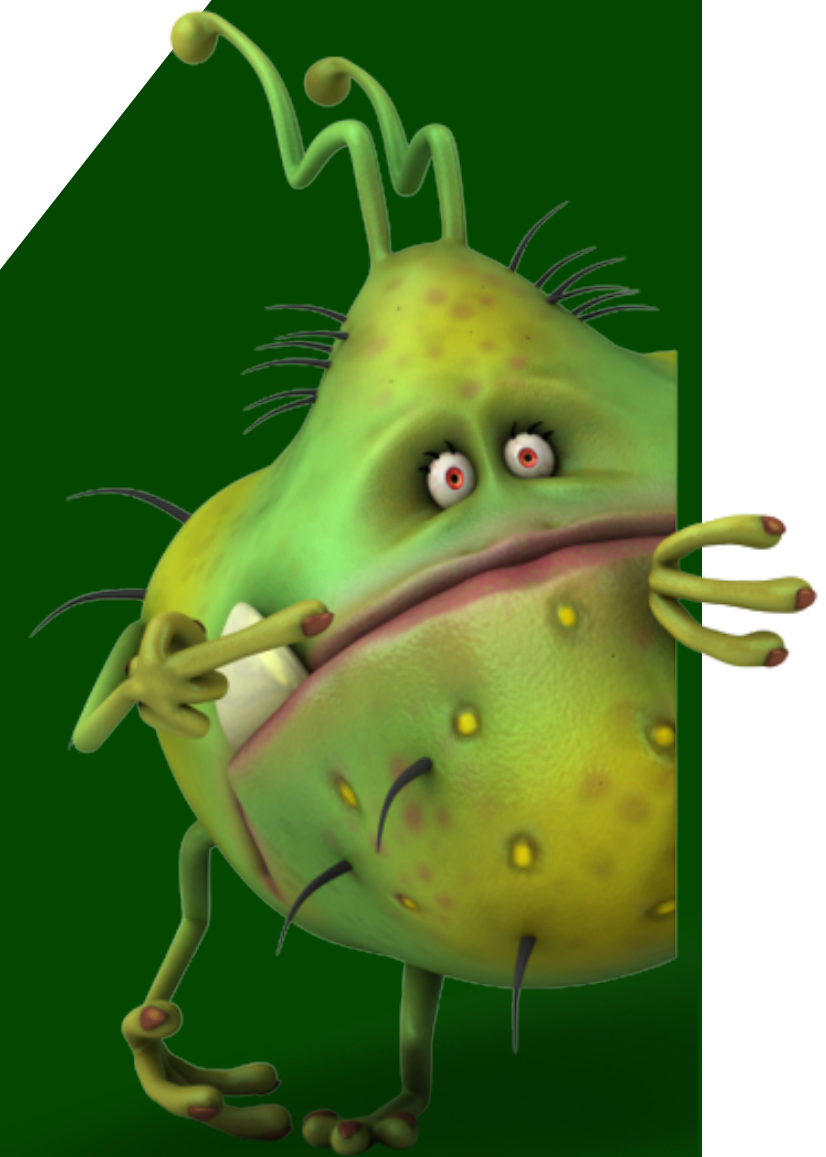


# MICROBES IN HOUSEHOLD PRODUCTS

PRESENTATION

# MICROBES :

- **Microbes are the organism which can not be seen in naked eye. They can be seen under microscope.**
- **Microbes are found in all habitat. They may be protozoans, fungi, bacteria or virus.**
- **Most of microbes are usefull to human beings. They are used in daily life in house hold products.**



# Uses ?

- **Curd** : curd is formed by adding small amount of curd to milk.

Lactobacillus bacteria and Lactic acid Bacteria (LAB) present in starter multiplies in suitable temp and converts milk in to curd.





# Uses ?



- The dough, which is used for making foods such as dosa and idli is also fermented by bacteria.

# Uses ?

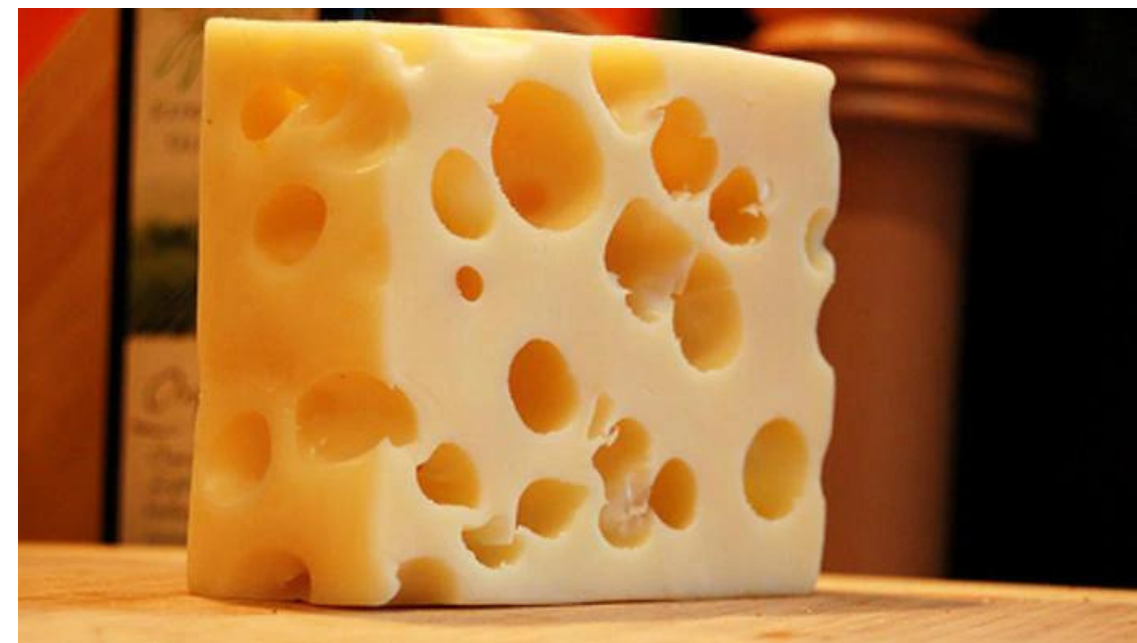


- The puffed up appearance of dough is due to the production of  $\text{CO}_2$  gas.



# Uses ?

- The dough , which is used for making bread , is fermented using baker's yeast, *saccharomyces cerevisiae*.
- Cheese, is one of the oldest food items in which microbes were used.



# Uses ?



Toddy

## Beverages





# Uses ?

- **Antibiotics :**
  - **Penicillium notatum**
- Penicillin was the first antibiotic to be discovered.
- Antibiotics have greatly improved our capacity to treat deadly diseases.





# Uses ?

- **Organic acids:** The organic acids are extracted by microbes.
  - Citric acid → fungi *Aspergillus*
  - Acetic acid → bacteria *Acetobacter*
  - Lactic acid → *Lactobacillus*
- **Enzymes:** Enzymes like lipases, proteases and glucose are derived from microbes.

**Thank You**

