



# Theoretical Food processing Lecture 1

Food Security and Public Health  
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# INTRODUCTION AND GOALS

# What is food processing?

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The term, 'food processing' refers to any operation (mechanical, physical or chemical) carried out on food in order to change its properties. It can be a single operation or a combination of different ones. Food processing is carried out in order to make food suitable to be consumed or stored.

Food processing requires **good quality raw materials** from either **plant** and/or **animal** source to be converted into **attractive, marketable** and often **long shelf-life** food products.

# Development of Food Processing and Technology

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- ❖ Food processing dates back to the prehistoric ages when crude processing incorporated **fermenting, sun drying,** preserving with salt, and various types of cooking (such as **roasting, smoking, steaming, and oven baking**)
- ❖ Such basic food processing involved **chemical enzymatic** changes to the basic structure of food in its natural form as well served to build a barrier against surface microbial activity that caused rapid decay.

# Development of Food Processing and Technology

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❖ **Salt-preservation** was especially common for foods that constituted warrior and sailors' diets until the introduction of canning methods.

# Development of Food Processing and Technology

- In the 20th century, World War II, the space race and the rising consumer society in developed countries contributed to the growth of food processing with such advances as
  - spray drying
  - evaporation
  - juice concentrates
  - freeze drying
  - and the introduction of artificial sweeteners, colouring agents, and such preservatives as sodium benzoate.

# Development of Food Processing and Technology

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- In the late 20th century, products such as dried instant soups, reconstituted fruits and juices, and self cooking meals such as meal ready to eat MRE food ration were developed.
- By the 20th century, automatic appliances like microwave oven, blender, and rotimatic paved way for convenience cooking.

# Development of Food Processing and Technology

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- Food preferences and choices changed and people started incorporating into their diet food items/preparations from different regions and countries.
  - The desire to have seasonal foods all year round increased.
- Food technologists made efforts to provide both **safer and fresher food** using **new techniques**.



# Con.

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- In the 21st century, food technologists are challenged to produce foods suitable for **health** and other changing needs of consumers.
- Food technology has provided a vast variety of **safe** and **convenient foods**.
- In developing countries this rapidly expanding and developing field, has been helpful in improving food security and has opened avenues for employment at all levels.