

ELECTIVE III – HOME SCALE FOOD PRESERVATION

Objectives :

To enable students to

- Understand the types of spoilage occurring in foods.
- Gain knowledge on various methods of food preservation
- Acquire skills in preservation of various foods.

Unit I Basic Principles of Food Preservation

Meaning, objectives and basic principles of food preservation (Asepsis, Removal, anaerobic conditions).

Unit II Food spoilage

Food spoilage and its prevention

Causes, Types (Physical, Enzymatic and Microbial – Moulds, Yeast and Bacteria).

Unit III Food Preservation using high and low temperature

Principles, types, methods and advantages of each.

High temp – Canning process, Principles involved, Spoilage encountered, aseptic canning.

Low temp – 1. Refrigeration – Principles and working systems.

2. Freezing – Principles, methods, advantages and disadvantages

Unit IV Food preservation using drying, dehydration and radiation

Principle, advantages, mechanical devices and methods employed for drying and dehydration. Pretreatment of foods, factors affecting drying and dehydration. Radiation – types, uses and safety limits.

Unit V Food preservation using Chemicals

Types of preservation, advantages and disadvantages, permissible limits.

Related experience :

1. Preparation of Squashes and Juices
2. Preparation of jams, jellies, marmalades
3. Preparation of pickles, sauces, ketchups
4. Preparation of dehydrated products.
5. Industrial visit