

FOOD PRESERVATION:

Introduction: - Food preservation helps to increase the shelf life of food and does not decrease the food quality and add the variety they died and avoid the food waste.

Food spoiled due to dietary a change that occurs in it that makes it inedible or harmful. Food changes from time of harvest and slaughter. The various causes of food spoilage are as follows-

1. Growth of micro organization which brings about undesirable change.
2. Action and enzyme present in the food.
3. Oxidative reaction in the food.
4. Mechanical damage to the food (exam-Brushing of apple, banana, mango, tomato etc.)
5. Damage due to pest.

Food preservation define as a science which deals with the process of preservation to prevent from spoilage, damage and those allowing it to store in a condition for further used. In order to preserve food processing directed at inactivating or controlling micro-organism enzymatic activity necessary but however it must be remembered that no method of preservation will improve the original quality of the product.

Methods of food preservation:

Food preservation methods can be broadly divided into some categories-

1. *Bacteria tic method*- In these method the micro-organism are unable to growth in the food like dehydration, pick ling, salting, smoking and freezing.

And most of the popular methods are -

Addition of salt and sugar- Dry salting is used for preservation of raw mango, amla, fish, meat, lemon etc. (jam and marmalades are preserved by using the sufficient quantity of sugar.

2. *Use of oil and spices* (varieties of pickle).

3. *Use of acid* (pickle onion, chilly vinegar, lemon juice).

4. *Use of chemical preservation*

- I. Benzoic acid – jams and jellies).
- II. Potassium Meta-Bisulphate- Sorbis acid, calcium propionate, sodium benzoate, BHA, BHE with are some of the approve antioxidant use for chemical preservation.

5. *Use of low temperature*-

- I. Seller storage temperature (-15C).
- II. Refrizarator or chilly temperature (0 to -5C).

6. Use of higher temperature-

Kills micro-organism and activated enzyme methods are included

- I. Temperature below 100C as in pasteurization (Milk and dairy product).
- II. Boiling temperature means 100C as in cooking purpose (light veg. etc.)
- III. Temperature above 100C as in caning.

FIRE and FIRE CONTROL:

Fire prevention:- When dealing with this subject it is necessary to realize that it falls into two separate category-

1. Fire prevention, 2. Fire fighting.

The most important requirement for fire prevention is good house. Keeping and maintenance through it falls under the justification of the maintenance department rather than the house-keeping department.

For fighting fire the chief engineer is normally responsible for each hotel. He is responsible for instructing every people or emplace in his department on organizing and supervising for fire drills. Instruction given to maintain emplace should enable them to be able to clarified types of fire and to be familiar with the proper method of using the extinguishing them.

Classification of fire:- For all practical purpose there are three general classes of fires are-

Class 'A':- In this class fire is occurring in ordinary dry commodities materials such as wood textiles, papers, rubbish etc. In this fire a cooling effect is essential.

Class 'B':- Fires in inflammable liquids such as kinds of oil and grease etc. In this fire a blanketing effect is very essential.

Class 'C':- Fires in electrical equipments where the uses of nonconductive agent are required for extinguishing them.

Types of extinguisher:-

For class 'A':- For class fire 'A' the soda acid extinguisher which injected under pressure when they are invented, are affected but the restriction is limited and the contained only ½ gallon of water. Direct application of water from hoses must be used when fires are beyond the capacity of those small extinguishers.

For class 'B':- For protecting the class 'B' Fire using the CO₂ must be used as a fire extinguisher.

For class 'C':- Fire CO₂ tag is extinguishing agent of choice sense it is non-conductive air must be taken in using CO₂ extinguisher of fuse plunge.

Suggested procedure for fire-fighting:-

Care for fire extinguisher:- It is place where for sources can originated. Fire extinguisher may be really or never used. However when they are needed in a

hurry and must always be in working order. All fire appendices should be in working order and the entire fire extinguisher hoses valve or spring loaded system should be inspected semi-annually and carry tag indicating system and the date of valid date of inspection control by inspector.

First stairs:- They are generally placed at the end of wings. It always kept clean, oil and other supplier's substance as well steps and safe condition is important. This passage always be kept well and cleaned and free obstruction and dust keeping stair are cleaned and dried with suitable light colour paint laid a great deal to promoting general safety.

Fire alarm system:- The fire alarm should be tested monthly and semi monthly. The coding of this system should be thoroughly understood by every maintenance department employee. Printed copy of code should be display in the maintenance department. If an alarm had been placed immediately following the fire and is the responsibility of the chief engineer.

Fire doors:- Like other fire equipment when the needed areas. The proper function is very important. The lock of door and door should be inspected semi-annually and fire door (emergency exit) must never be blocked.

Fire control:-

Ring fire alarm and inform telephone operator about the fire hazard.

At first the name that ring the fire alarm then state extent of fire and application of fire or source of fire then that the maintenance department take care. They cut off fuel supply line and power supply then they attack the fire sources to the help the fire extinguisher & security staff.

Role of telephone operator:- In case of break out if any hotel establishment the telephone operator play a very important role for controlling the fire. He/she passed the information about the fire to the following department within the hotel.

Engineering control and security play the most important role for firefighting within the hotel, other than the telephone operator all calls for help from fire control department like fire bridge by setting up the auto fire alarm system. And provided necessary information like name or organization (hotel) size of extent of the fire, classification of fire or source of fire etc. The telephone operators also ring up the police station and the ambulance service for adequate help.

Statistical report:- 30% of world fire are due to careless smoking 20% for electrical short-circuited. 16% of kitchen and restaurant and rest from laundry contact cleaning process.

Basic step should be protecting fire:

1. Check "No Smoking" sign in restricted area.
2. Check fire hazards joints of pipes nozzle or point.
3. Check fire hazard carpenter shops.
4. Check electrical outlets.
5. Rubbish and waste in anteroom.
6. Check all exit sign and light.
7. Check power line and gas line regularly.
8. Check fire supply line and tanks.
9. Check kitchen range extinguishing system.
10. Blemish to decoration used.

Losses due to fire:- We can divided to loss two way, one is people oriented and other one establishment oriented.

People oriented

1. Death
2. Panic

Establishment oriented

1. Loss of good wills and business
2. Loss of property.
3. Loss of job.

Name of the fire extinguisher, used for protecting the fire:

1. *Foam* (cream): Foam could out fire by forming a blanket of foam over the top of the fire. It is particularly good for putting out fire because the foam stay in position and so stop the fire flame.
2. *CO₂*: CO₂ gas is used on fire as inflammable liquid and has a advantage it does not contact electricity or power.
3. *Dry powder*:- As well as using of CO₂.
4. *Water Sprinkle system*:- Using the kinds of hose pipe or protecting the fire hazard using lots amount of water.