



1. What is the significance of processing vegetables?

Answer: Vegetable processing aims to offer varied forms of food over a long period of time. Also it helps to supply safe and nutritious food to consumers along with earning foreign exchange by exporting semi-processed or finished products like sauces and pickles.

2. What should be the criteria for processing vegetables?

Answer: Whether a particular variety is needed in a processed form or not with its uninterrupted supply and its ability to withstand processing are the attributes which should be ascertained before processing a particular vegetable. Also if a particular variety of vegetable can remain fresh for longer time may not require processing.

3. Name various methods used for processing vegetables?

Answer: Juicing, dehydration, canning and fermentation are the commercially used methods of processing vegetables.

4. Why vegetables are called protective foods?

Answer: They are often referred as "*Protective Foods*" by the role they play in preventing many diseases and improving digestion.

5. What is blanching?

Answer: Blanching is a heat treatment given to inactivate enzymes. It is of short duration either given in water or steam at the temperature of about 100° C or below.

6. What are the different methods of drying vegetables?

Answer: The three basic types of drying process:

1. Sun drying and solar drying;
2. Atmospheric drying including batch (kiln, tower and cabinet dryers) and continuous (tunnel, belt, belt-trough, fluidised bed, explosion puff, foam-mat, spray, drum and microwave);



3. sub-atmospheric dehydration (vacuum shelf/belt/drum and freeze dryers).

7. What are the different methods of canning vegetables?

Answer: Vegetables can be canned either in the brine, or in concentrated tomato juice or in the vegetable oil depending upon the type of vegetable to be canned.

8. Which are the most heat resistant enzymes in vegetables?

Answer: Catalase and peroxidase are the two main heat resistant enzymes found in the vegetables.

9. Why does canning of vegetable differ from that of fruits?

Answer: Following factors make vegetable canning different:

1. Chemical composition of vegetable.
2. Most of the vegetables contain more starch while their acidity is much lower than that of fruits.
3. Since being grown near to ground they contain more of heat resistant soil microorganisms and thus require more cooking or processing than fruits.

10. Which are the different covering or filling liquids used for filling canned vegetables?

Answer: The vegetables may be canned in brine in their natural form or in their curried style using spices, oil, etc as the covering liquid.

11. Why are vegetables processed at a higher temperature than fruits?

Answer: Vegetables usually being non acidic (except acidic ones like tomato and rhubarb) with pH above 4.5 need to be processed at temperature of about 115-121 °C to terminate thermophilic soil borne microorganisms.

12. What head space is maintained during canning?

Answer: Head space of the range of 0.3- 0.5 cm should be



usually maintained.

13. Enumerate different methods of identifying can defects?

Answer: Dipping in the hot wax bath, tapping with a steel rod or measuring the can pressure using a pressure gauge, are the different methods to identify can defects.

14. What is the objective of using filling liquid in the canned products of vegetables?

Answer: The objective of filling liquid in the cans is to improve taste and fill up the inter spaces between the vegetable pieces so as to facilitate the heat transfer and processing of cans.