

## **IMPORTANCE AND SCOPE OF FRUIT AND VEGETABLE PRESERVATION IN INDIA**

Fruits and vegetables are an important supplement to the human diet as they provide the essential minerals, vitamins and fibre required for maintaining health. In India, the total fruits and vegetable production is about 137 million tonnes per year i.e. 46 MT fruits and 92 MT vegetables. The varied agro climatic conditions available in our country make it possible for us to produce several types of tropical, subtropical and temperate fruits and vegetables. It has been variously estimated that 20 to 30% of the horticultural produce is lost before consumption which accounts for Rs. 5000 crores because of poor harvesting, handling, storage, transportation and marketing practices. The fruits and vegetables are highly perishable commodities and the ambient high temperature obtained in the tropical country like ours makes them more susceptible for rapid development of senescence, decay and rotting. Both respiratory and transpiratory rates are proportional to temperature, increases and so that the produce quickly dries, wilts and spoils unless properly preserved.

Two approaches are possible for solving this problem. One is the creation / expansion of cold storage facilities in the fruit and vegetable producing regions themselves, as also in the major urban consumption centres, to ensure supply of fresh fruits and vegetables throughout the year. Another approach is to process the fruits and vegetables into various products which could be preserved for a long time and add to the value of the product. With increasing urbanization rise in middle class purchasing power, change in food habits and the dying out of the practice of making preserves in individual homes, there is increasing demands for factory made jams, jellies, fruit beverages, dehydrated foods, pickles etc. in the domestic market. Moreover, there is considerable demand for some of these products in foreign markets e.g. mangoes both fresh and canned, fruit juices, salted cashew are good foreign exchange earners.

The production of fruit and vegetable products in India are canned, bottled fruits and vegetables, jams, jellies, marmalades, fruit juices, fruit pulps, squashes, crushes, cordials, fruit syrups, fruit nectars, RTS fruit beverages, fruit juice concentrates, chutneys, pickles, mango slices in brine preserves, candied and crystallized fruits and peels, dehydrated fruits and vegetables, frozen fruits and vegetables, tomato products, sauces, soups etc.

In India there are 4000 processing industries are functioning. But a marginal quantity of 1.0 to 2.0 % of the produce is processed and packaged in contrast with developed and developing countries i.e., 70 to 80%. The total annual consumption of processed fruits and vegetable products in the country is reckoned at only 50,000 tonnes of which defence and star hotels account for 15,000 tonnes and the remaining 35,000 tonnes to the public, i.e. a percapita

consumption of 40 gms / year. Thus we can see an enormous scope and potential for the expansion of fruits and vegetable industries in India in the future.

### **Export of fruits and vegetables from India**

In terms of global trade, India's share in agricultural export is insignificant. While India contributes 8.56% and 13.5% respectively to world's fruits and vegetables production, its share in global exports of these products is less than 1.0%. Delhi, Bombay and Trivandrum are the three main parts for air freighting of fruits and vegetables. These are mainly exported to Kuwait, Dubai and Saudi Arabia. Grapes are exported in large quantities from Bombay during January to March, while mango is exported during April to June. West Asia, the Far East and West Europe are the main export markets for Indian fruits and vegetables. Fruits juices, fruit pulp and pickles are mainly imported by the USSR, Yemen, Arab Republic. The other markets for processed fruits are UK, UAE, Saudi Arabia, Kuwait, Germany, USA, Holland and Switzerland. Nearly half of India's processed fruit exports are mango based fruit juice, canned and bottled fruits.

Fresh onions and mangoes are the main commodities entering in export trade. The other important fruits exported are melon, sweet melon, grapes, pomegranate, sapota, custard apple, orange, papaya, pineapple. Among other vegetables the principal items are tomato, ladies finger bitter gourd, chillies, fresh beans, cabbage, brinjal etc.