



Unit I – Topic 3

Scope of Fruit and Vegetable Preservation Industry in India - Present status, constraints & prospectus.

India is next to Brazil in fruits and next to China in vegetables. Being perishable in nature 35 to 40% losses due to deterioration. Therefore, we should preserve them for storage. Fruits and vegetables are protective foods. As per International Council of Medical Research. “Everyone should consume 85 gm of fruits per day”. By preserving the fruits and vegetables and their products we can enjoy them in off season. It improves employment of labours.

As far scope is concerned, the production of fruits and vegetables will be increased to a large extent. So to avoid glut in the market , they can be processed, preserved and enjoyed in off season. Different bi-products can be prepared from fruits and vegetables.

India is the Second largest producer of fruits after Brazil and 2 nd largest producer of vegetables after china. The total estimated annual production is 70 million tones. Due to inadequate facilities for processing nearly 35 to 40% produce of the total production is wasted amounting to Rs. 3000 crores annually.

The importance of fruits and vegetables are well known by the Indians as fruits and vegetables have immense food value in Vitamins and minerals which are main source of nourishment and body building. Storage of food material in perfect consumable condition for a longer time without undergoing any spoilage is an important necessity. Due to heavy glut in the market fruits and vegetables get spoiled due to lack of storage facilities. India is an ideal country that all the important fruits and vegetables can be produced due to varied soils of climatic conditions. However, fruits and vegetables are cheap in the season and wasted due to spoilage at greater extent. By growing fruit and vegetables being they are cash crops farmers get more



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income from the field. Therefore, to avoid the spoilage processing units are to be installed. It has been reported by AIPEDA (Agril and Product Export and Development Authority) that the import of fruits has been growing 37% annually. Considerable losses also occur due to improper handling transportation and lack of processing and preservation units. By using various methods shelf –life of fruits and vegetables can be extended and used as material for processing units.

Scope:

There is tremendous production of fruits and vegetables in a shorter period. Therefore, to avoid the post harvest loss and to increase substantial returns to processors for off season consumption. Availability of cheap labour, Government Subsidy for cold storage and processing units, convenience of roads in case for marketing and transport. Availability of cans, bottles, and other equipments at cheap rate, there is tremendous for export of processed products like Jam, jelly, marmalade, pickles, etc. dehydrated and dried vegetables in addition to domestic demand in India.

The fruit and vegetable preservation industry in India has significant potential and plays a crucial role in addressing food security, reducing post-harvest losses, and meeting the growing demand for processed food products. Here are some key points regarding the scope of the industry:

1. **Agricultural Diversity:** India is known for its diverse range of fruits and vegetables due to its varied agro-climatic conditions. This diversity provides ample opportunities for the preservation industry to process and market a wide array of products.
2. **Rising Demand for Processed Foods:** With changing lifestyles, urbanization, and an increase in disposable incomes, there has been a growing demand for convenient and ready-to-eat food products. Processed fruits and vegetables cater to this demand and contribute to the overall growth of the industry.



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3. **Government Initiatives:** The Indian government has been promoting food processing industries, including fruit and vegetable preservation, through various schemes and initiatives. These initiatives aim to reduce post-harvest losses, enhance food safety standards, and boost rural employment.
4. **Export Potential:** The industry has the potential to contribute significantly to India's export market. Processed fruit and vegetable products, such as jams, pickles, and frozen vegetables, have good export prospects, provided they meet international quality standards.
5. **Technological Advancements:** Advances in food processing technologies and techniques have enabled the industry to produce high-quality products with extended shelf life while retaining nutritional value. This has contributed to the industry's competitiveness in both domestic and international markets.
6. **Challenges:** Despite the potential, the industry faces challenges such as inadequate infrastructure, lack of cold storage facilities, and issues related to supply chain management. Addressing these challenges is crucial for the sustained growth of the sector.
7. **Consumer Awareness:** Increasing health consciousness among consumers has led to a growing demand for healthier and natural food products. This trend can be leveraged by the industry to introduce innovative and health-oriented preserved fruit and vegetable products.
8. **Organic and Natural Products:** There is a rising interest in organic and natural products. The industry can capitalize on this trend by developing and marketing organic and natural preserved fruit and vegetable items.



Present Status:

1. Global Demand:

- There is a growing global demand for fruits and vegetables due to increasing awareness of the health benefits associated with their consumption.
- Changing dietary preferences and an emphasis on a healthy lifestyle contribute to the rise in demand.

2. Supply Chain Challenges:

- The fruits and vegetables sector faces challenges related to the supply chain, including transportation, storage, and distribution issues that may affect the quality and availability of produce.

3. Technology Adoption:

- Technology adoption, such as precision agriculture and modern farming techniques, is helping improve yields and efficiency in some regions.

4. Organic and Sustainable Practices:

- There's a growing trend towards organic and sustainable farming practices, reflecting consumer preferences for environmentally friendly and healthier options.

Constraints:

1. Climate Change:

- Changing weather patterns and the impact of climate change can adversely affect crop yields and quality.

2. Pests and Diseases:

- Fruits and vegetables are susceptible to pests and diseases, which can lead to significant losses for farmers.

3. Land and Water Constraints:

- Limited availability of arable land and water resources poses challenges for



expanding agricultural production.

4. **Labor Shortages:**

- Some regions experience labor shortages, impacting harvesting and other farming activities.

Prospects:

1. **Technological Advancements:**

- Continued advancements in agricultural technology can enhance productivity and efficiency in fruit and vegetable farming.

2. **Global Trade Opportunities:**

- Growing global demand opens up opportunities for countries to engage in international trade of fruits and vegetables.

3. **Health and Wellness Trends:**

- The increasing focus on health and wellness is likely to sustain or even boost the demand for fresh and nutritious fruits and vegetables.

4. **Sustainable Practices:**

- The adoption of sustainable and eco-friendly practices can contribute to long-term viability and marketability.