



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
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DEPARTMENT OF FOOD TECHNOLOGY

19FTT305-FRUIT AND VEGETABLE TECHNOLOGY

UNIT 1- INTRODUCTION TO PROCESSING OF FRUITS AND VEGETABLES



Scope of Fruit and vegetable Preservation industry in India



Present Status of Fruit and Vegetable Preservation in India

Growth of the Processed Food Market: The Indian processed food market, including fruit and vegetable preservation, has seen substantial growth due to factors such as urbanization, rising disposable incomes, and growing awareness of convenience foods. Products like juices, jams, pickles, canned vegetables, and frozen foods are increasingly popular, both domestically and internationally.

Technology Adoption: The use of modern preservation techniques, including refrigeration, canning, dehydration, freezing, and vacuum packing, has been expanding in India. There has also been an increase in the use of technologies like high-pressure processing (HPP) and cold chain logistics to preserve the quality of fruits and vegetables for longer periods.



Export Potential: India is one of the largest producers of fruits and vegetables globally, and the preservation industry is capitalizing on this by catering to both domestic and international markets. The demand for Indian processed fruits and vegetables is growing in countries like the U.S., Europe, and the Middle East.

Government Initiatives: The Indian government has implemented several schemes to support the agricultural and food processing sectors

Constraints in the Industry

Infrastructure Challenges: Inadequate cold storage facilities, poor transport infrastructure, and a lack of efficient supply chain management remain major hurdles in preserving the freshness of fruits and vegetables. These issues lead to high post-harvest losses, especially for perishable goods.

Inconsistent Quality and Standardization: India's agricultural output is often inconsistent in terms of quality and supply, leading to difficulties in meeting international standards for preservation. Variations in crop quality can result in wastage during the processing stage, affecting profitability.



Labor-Intensive Processes: Although automation and mechanization are gradually being adopted, much of the preservation industry still relies on manual labor, which can lead to inefficiencies and higher production costs.

Regulatory Challenges: The lack of uniform food safety and quality standards can be a barrier, especially for small- and medium-sized enterprises (SMEs) trying to enter export markets. Compliance with international food safety standards like HACCP (Hazard Analysis Critical Control Point) and FSSAI (Food Safety and Standards Authority of India) can be challenging.

Supply Chain Issues: The preservation of fruits and vegetables requires a complex and efficient supply chain, which is currently underdeveloped in many parts of India. Issues such as inadequate transportation, inefficient cold chains, and a lack of post-harvest management knowledge contribute to losses.



Prospects of the Industry



Increasing Demand for Processed Foods: With the growing middle class and increasing demand for convenience foods, the market for preserved fruits and vegetables is expected to expand significantly. Products like ready-to-eat meals, frozen vegetables, and fruit juices have strong prospects in both the domestic and export markets.

Export Growth: As global demand for Indian agricultural products increases, there is vast potential for India's preservation industry to expand exports of fruits, vegetables, and processed products. The government is also working to establish export-friendly policies, which will further support industry growth.

Technological Advancements: Advances in food preservation technology, such as better cold storage systems, packaging innovations, and processes like freeze-drying, are expected to improve product shelf life and reduce wastage. This can increase the profitability of the industry.



Government Support: The Indian government continues to focus on improving food processing infrastructure through schemes like PMKSY, which aims to enhance cold chain networks and develop logistics for perishable goods. This can help reduce wastage and increase the availability of preserved products.

Sustainability Trends: As the global consumer increasingly prefers sustainable and eco-friendly products, India's preservation industry can capitalize on this trend by promoting organic and natural preservation methods, along with eco-friendly packaging solutions.

Opportunities in Niche Products: There is a growing trend for organic and specialty preserved food products, such as organic jams, chutneys, and pickles. Entrepreneurs can tap into these niche markets with value-added products that cater to both local and global preferences.



Thank You