The <u>"Fruit and Vegetable Processing Industry in India 2020"</u> report has been added to Research And Markets.com's offering.

- India is the world's second-largest producer of fruits and vegetables.
 To reduce wastage of fresh fruits and vegetables, and to add value to them, processes like canning, dehydration, pickling, provisional preservation and bottling have been introduced.
- However, percentage of processing of fruits and vegetables is currently less than 3% as compared to countries like China (23%), the United States (65%) and Philippines (78%).

- In FY 2019, ~8.31 Mn tons of fruits and vegetables were processed in India, which is expected to reach 16.39 Mn tons by 2024, expanding at a CAGR of ~14.84% during the FY 2020-FY 2024 period.
- The Indian fruit and vegetable processing industry experiences a conducive growth environment, owing to the abundant supply of raw materials and favorable government policies like **Pradhan Mantri Kisan Sampada Yojana (PMKSY).** Rising consumer affordability and rapid urbanization resulted in lifestyle changes, following which the preference for processed fruits and vegetables increased substantially.
- Nevertheless, several factors like the lack of required infrastructure, and higher cost of processed fruits and vegetables are the major hurdle to the growth of the industry.
- The industry is witnessing an increased application of innovative technology to increase productivity. Artificial intelligence (AI) is being implemented to examine fresh fruits and vegetables for defects, and accurately predict the exact date of decay.

Nanotechnology is aiding in maintaining the freshness of perishables. Furthermore, grading robots are used to evaluate the quality of the produce to minimize manual errors. Cold plasma, high-pressure processing, irradiation and radio frequency identification (RFID) are technologies that are mostly used in the fruit and vegetable industry in India.

Companies covered:

•Dabur India Limited

- •ITC Limited
- •Freshtrop Fruits Limited
- •Hindustan Unilever Limited
- Tai Industries Limited
- •Capricorn Food Products India Limited
- Cremica Food Industries Limited
- •Fieldfresh Foods Private Limited
- •Mother Dairy Fruit Vegetable Private Limited
- •Shimla Hills Offerings Private Limited

FRUITS AND VEGETABLES Overview processing

- The diverse agricultural climatic zones in India make it a great location to grow a wide range of varieties of fruits and green vegetables.
- India is the largest producer of fresh vegetables globally. It accounts for about 15 %13 of the world's total production.
- Among vegetables, the country is the largest producer of ginger and okra and the second largest producer of potatoes, onions, brinjal, cauliflowers and cabbages.
- India also ranks first in the production of fruits like bananas (25.7 %)14, papayas (43.6 %)15 and mangoes (40.4 %)16.
 As of 2018-19, India's total horticulture production stood at 313.85 MMT.
- Processed Fruits and Vegetables With large capacities, India has a highly decentralized fruit and vegetables processing industry. Currently, the industry's retail sales see a 12 % value growth and a seven % volume growth as compared to 2018 numbers.
- The industry was valued at INR 15.4 Bn (USD 204 Mn) and exhibited a production of 62,900 tonnes in 2019.
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MAJ OR VEGETABLE PRODUCING STATES-(AS PER 3RDADVANCED ESTIMATES, NHB (2018-19))



State	Production (MMT)
West Bengal	29.545
Uttar Pradesh	27.703
Madhya Pradesh	17.773
Bihar	16.699
Gujarat	12.552



Export potential

- As per 2018-19 data, the Indian fruits and vegetables industry exported fruits and vegetables worth INR 10,236.93 crores (USD 1,469.33 Mn).
- Of this, fruits comprised of exports worth INR 4,817.35 crores (USD 692.01 Mn) and vegetables comprised of exports worth INR 5,419.48 crores (USD 777.25 Mn)
- Additionally, India exported 3,39,606.58 MT of other processed fruits and vegetables globally worth of INR 2,804.99 crores (USD 402.47 Mn) during the year 2018-19.
- The country's total export of processed food was valued at INR 31,111.90 crores (USD 4.121 Bn) in 2018-19 which included dried and preserved vegetables and mango pulp.

Key opportunities

- Technology transfers to reduce wastage: Initiatives that help reduce wastage levels, including adequate infrastructure (cold chains, processing infrastructure), research and development for processed food and packaging, innovation in farm preservation systems and skill development/post-harvest infrastructure.
- Aqua- horticulture: Wetlands present the opportunity to grow various horticulture crops such as foxnuts.
 Such wetlands have been created in Andhra Pradesh in India. Using GIS database technology, opportunities in aqua- horticulture can be explored by understanding the ecology and economy of certain crops.

THE MAJ OR DESTINATIONS FOR INDIAN FRUITS AND VEGETABLES ARE:

Bangladesh, UAE, Netherlands, Nepal, Malaysia, UK, Sri Lanka, Oman and Qatar



- **Fruits and vegetable processing:** The fruit and vegetable processing industry provide a huge opportunity. The current processing levels in fruit and vegetables stand at a mere two. The opportunity can be explored in the form of frozen (IQF), canned, pulp, puree, paste, sauces, snacks, dressings, flakes, dices, dehydration, pickles, juices, slices, chips, jams and jelly.
- **Processed fruit-based ingredients:** Catering to the increasing demand for healthy alternatives, some fruitbased components for condiments have a vast opportunity. This also includes fruit-based ingredients for ice creams, yogurt and beverages.
- **Export potential of processed fruits and vegetables:** While India only has a one %²⁶ share in the global market, the acceptability of Indian horticulture products is rising due to concurrent developments in the areas of state-of-the-art cold chain infrastructure and quality assurance measures. This presents a huge opportunity for harnessing the export potential.
- **Canning, dehydration, pickling, provisional preservation and bottling:** A large part of the fruits and vegetables produced in India often go to waste. In order to reduce this waste and increase shelf life of fresh produce, opportunities in canning, dehydration, pickling, provisional preservation, and bottling can be explored.

