DETAILED PROJECT REPORT

FOR

AGRO PROCESSING

BY

JARIS AGRO PROCESSING INDUSTRIES PVT. LTD.
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1. **Introduction to Jaris Agro Processing Industries Pvt. Ltd. (“JAP”)**

Name : JARIS AGRO PROCESSING INDUSTRIES PVT. LTD.

Industry : Agro Processing

Registered Office : 1021-22, Maker Chambers V, Nariman Point, Mumbai -400021

Processing Unit : SURVEY NO: - 16/12, VILLAGE: - CHAI, POST: - NANDGAON, TALUKA: - KARJAT, DISTRICT: - RAIGADH.

The company is currently conducting a feasibility study of starting a plant and manufacturing unit to procure and process various agriculture products like Jalapenos, Cauliflower, Green chilies, Red Capsicum, Green Capsicum, Sweet Corn, Ginger, Strawberries, and Jackfruit etc. The proposed start-of-the-art processing plant will have an installed capacity of 10,000 TPA. The company has zeroed on a location at Karjat, Dist. Raigad. The total project includes fixed asset investment of Rs.9,500.00 Lakhs and working Capital Requirement of Rs.5,000.00 Lakhs.

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<tr>
<th>Cost of Project</th>
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<td>Land</td>
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<td>Building &amp; Site Developement</td>
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<td>Machineries</td>
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<td>Margin Money Towards Working Capital</td>
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<td><strong>Total</strong></td>
<td><strong>9500.00</strong></td>
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<tr>
<th>Means of Finance</th>
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<td>Capital &amp; Premium</td>
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<td>Unsecured Loans From Directors</td>
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<td>Term Loan</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>9500.00</strong></td>
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**WORKING CAPITAL REQUIREMENT**

| Cash Credit Limits                                   | 3000.00        |
| Letter of Credit / Bank Guarantee                    | 2000.00        |
| **Total**                                            | **5000.00**    |
2. **Brief Profile of Management Team**

**Mr. Bharat Kumar Shah**

*(CMD)*

Our Vision is to become one of the leading Process Food Industry Globally, we are working towards the direction for promoting the better & healthy lifestyle by giving best finest products to consumers.

Our Mission is to become the premiere brand in the global sector with the ideal combination of values and culture.

Growing awareness, easier access, and changing lifestyles have been the key growth drivers for the consumer market.

We are planning to produce desirable quality products and make them integral part of consumer's life. We would create products which shall become the foremost choice of Consumers for their healthy life.
Mr. Sunil Gorak Bangar  
(Executive Director)  
Mr. Bangar has 13 years of vast experience in Revenue and has Served Maharashtra Govt. in various Land/ Revenue departments. Being roots of farmer and also due to the experience of Land/ Revenue Mr. Bangar now as a profession and due to his vast experience he plays a pivotal role in the formation of our organisation. Mr. Bangar with his expertise, experience and also due to the local connects with the Farmers and with his technical expertise can get the best outcome of farming Products.

Mr. Ruchir Bhatt  
(DIRECTOR & CEO )  
Mr. Bhatt, 53 years has vast experience of 32 years , as a Head Admin/ Real Estate / Liason with Corporate Service (Management Department) with Global Indian MNC. Mr. Bhatt has Excellent PR qualities for Maintaining, Keeping & Building relationship with Govt. bodies etc. and able to maintain & develop good relations with political parties,MMRDA / MSRDC / BEST / MSEB / Labour Commissioners and BMC ward Officers, Traffic Police, Mantralaya, IAS officers, State / Cabinet Secretaries etc. and with all satellite teams. With his rich and diverse experience, he possesses both the competency and soft-skills to accomplish his duties with highest level of integrity. Mr. Bhatt would contribute in an effective and efficient manner to the daily operations of the Agro Industries.

Mr. Benke Prashant Subhash  
Agronomist (Technical Director)  
Mr. Subhash has done his Ph.D(Agri) , M.Sc (Agri) is a Qualified “National Eligibility Test” in NET in Agronomy & Agriculture, Meteorology, conducted by ASRB, New Delhi in September 2010. He has Achieved certificate of “Intermediate & Elementary Drawing Examination”. He has also Achieved Certificate of Management Development Programme on marketing Management, training organised by Ministry of Micro, Small & Medium Enterprises, MSME- Development Institute, Nagpur.
The other management team members include a production manager, sales head and accounts and finance head. All the three members bring more than 20 years of experience.

**Mr. Rishi Shah**  
*(President Purchase)*

Mr. Rishi Shah 37 years is young and dynamic personality with great energy and has experience of being on the Manufacturing side. He has the Proficiency in developing and improving processes so as to get the quality products. He is aiming towards highest growth, where he can put his hard and sincere efforts, creativity, team work and leadership to achieve the ultimate goal of organization, he has excellent leadership and management skills both. He also takes care of the Purchase side of the company, as he Possess extensive knowledge in Evaluate all purchase acquisitions and purchase orders on regular basis and develop implementation strategies for all programs and provide optimal level of customer services and prepare all reports to identify cost cutting initiatives. He has experience to purchase right quality, quantity of materials & supplies at responsible prices at the right time.

**Mr. Jay Shah**  
*(President Marketing/ Finance)*

Mr. Jay Shah , 35 years is youngest in the organization and is heading marketing Domestic & Export market, Mr. Shah has travelled extensively domestic/ abroad, and has got very good business connection in almost all the countries he has travelled, being in to the marketing field he has great connection in domestic as well. He has beforehand connected the Group with all the modern Trade which include big brands like FUTURE GROUP, RELIANCE, D’MART, TATA , BIRLA, & Etc. He is also taking care of the finance of the company, he has been closely associated with many investment banking companies through which he has gained rich knowledge of finance. He is the innovative part of organization creating value through its innovations and selling the products to corporate customers. He wish to serve the organization in an environment with his Techno-Commercial knowledge and leadership skills.
The Promoters and Directors have raised the initial funds on their own and to start the Project of the company. The promoters are High Net worth Individuals and they have capability to manage finances for the project.

3. **Project Brief**

The proposed project is to be located at Survey No: 16/12, Village – Chai, Post: Nandgaon, Taluka: Karjat, District: Raigadh, Maharashtra, India.

The Plant is situated at an ideal location with all necessary infrastructure facilities to start a manufacturing plant. The nearby town is Karjat, with rail connectivity to Mumbai and is off Mumbai-Pune express highway, ensuring good connectivity all around. The company has already purchased a sprawling land of over 10 acres and built a production plant spreading over 1,00,000 sq.ft and an office spread over 5,000 sq.ft.

**The Plant’s features:**

- The plant’s capacity is planned at 10,000 TPA, installed with technologically advanced and state of the art machinery.
- The factory will house a modern; state of the art laboratory to test the raw materials and finished products; with modern equipment’s.
- The plant will also house a captive diesel generator facility and in-house water supply through a bore well; to ensure smooth operations.
- The plant also proposes to obtain ISO & allied Quality Assurance Certifications after commencement of its operations.
- The company plans to house the team of highly skilled process engineers and management specialists, who are the best in the industry and from highly reputable institutions.
**Processing Flowchart:**

1. Receiving of fruits and vegetables
2. Grading/Sorting
3. Washing
4. Blanching required for some vegetables and Blanching not for fruits
5. Filling in container
6. Brine Solution Preparation & Addition of Brine
7. Passing through metal Detector and Exhaust
8. Lug capping
9. Retort
10. Cooling
**Products:**
The Company intends to produce various kinds of products Jalepeno, Okra, Green Peas, Red Paprika, Sweet Corn, Baby Corn, Jalepeno, Bitter Gourd, Red Capsicum, Carrot, Cauliflower, Chillies, Ginger, Red Paprica, Yellow Capsicum, French Beans etc., and Various Fruits Mangoes, Papaya, Strawberries, Jackfruit, etc., under contract farming from the farmers. All the farmers have around 100 acres of land in Karjat. The land is very fertile to grow all of the above products. The Company shall provide the seeds, fertilizer and pesticides to the farmers. The Company has entered into the agreement with all the farmers to grow the necessary products. AAT has a confirmed buy back from the domestic and international companies.

### 3.1. Jalapenos:

The Jalapenos Spanish pronunciation is a medium-sized chili pepper pod type cultivar of the species Capsicum annuum. A mature jalapeño fruit is 5–10 cm (2–4 in) long and hangs down with a round, firm, smooth flesh of 1–1.5 in (25–38 mm) wide. It is of mild to medium pungency, having a range of 1,000 to 20,000 Scoville units, depending on cultivar. Commonly picked and consumed while still green, it is occasionally allowed to fully ripen and turn red, orange or yellow, and is wider and milder than the Serrano pepper. The Chile Pepper Institute is known for developing colored variations.
3.2. Okra

The major okra producing states are Uttar Pradesh, Bihar, Orissa, West Bengal, Andhra Pradesh and Karnataka. In West Bengal, 0.662 M mt of Okra is produced from 58,400 ha with an average productivity of 11.4 mt/ha. The crop is also used in paper industry as well as for the extraction of fiber.

3.3. Green Peas

Green Peas, also popularly known as “garden peas” is one of the vegetable crops in India and basically this crop is cultivated for its green pods. Green peas belong to Leguminaceae family. Green Peas are used in vegetable cooking’s, in soups & frozen canned food as well. Green Pea straw is a nutritious fodder and be used for any animal (livestock) feed.
Major Green Peas Production States in India:- Karnataka, Madhya Pradesh, Rajasthan, West Bengal, Punjab, Assam, Haryana, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Bihar and Orissa.

Some of the health benefits of Green Peas are given below.

- Green Peas help in losing weight.
- Green Peas help in controlling blood sugar levels.
- Green Peas help in prevention of wrinkles, alzheimer’s, arthritis, bronchitis and osteoporosis.
- Green Peas source of anti-aging, strong immune system, and high energy.
- Green Peas may help in prevention of stomach cancer.
- Green Peas may help in improving digestion.

3.4. Paprika

Paprika is a variety of mild pepper (Capsicum annuum) that is dried, ground and used with food either as a spice or garnish. Paprika has been used in a variety of cuisine for hundreds of years, adding a serious boost of vitamin C to dishes. In fact, paprika peppers have more vitamin C than lemon juice by weight. They are grown much like other peppers, which means they like a well-draining, fertile soil in a sunny area. Provided that you live in a warm climate, you may start paprika outdoors from seed in zones 6 and higher.
3.5. Sweet Corn

Corn (maize) is native to America and has been cultivated in Central America since 3500 BC. Corn is classified as sweet, pop, flour, silage, or feed corn, depending on the type of carbohydrate stored in the ear. Sweet corn gets its name from special genes that prevent or retard the normal conversion of sugar to starch during kernel development.

3.6. Baby Corn

Introduction of Baby Corn Baby Corn maize is one of the valued vegetables gaining popularity throughout the world including in India. What is baby corn? It is nothing but “cobs removed within 4 to 5 days after their emergence”. Baby corn cultivation or methods are similar to regular commercial maize cultivation practices. The only difference is the harvesting period or duration of the crop. Baby corn crop duration is about 2 months whereas regular corn/maize crop duration is 4 months. In India, Baby corn consumed as fresh vegetable in curries, pickles, pulav, soups, salads and snacks. Baby corn is rich in ber and phosphorus. This vegetable is low in calories and free cholesterol.
Following are the health benefits of baby corn.

- Baby corn is a low calorie vegetable.
- Baby corn helps in weight management.
- Baby corn is a low-carb, high fiber, fat-free vegetable.
- Baby corn is nutrient-rich and good source of vitamins and minerals.
- Baby corn has low glycemic index than regular corn. Hence good for controlling blood sugar levels.

**Climate Requirement for Baby Corn Farming:**

Baby corn crop requires good sunlight with temperature range of 22°C to 28°C for optimal growth. This crop does not grow well in high temperature regions exceeding 30°C. However there are baby corn varieties developed for low chilling areas.

**Improved Varieties of Baby Corn in India:**

There are some improved baby corn varieties developed for good yield and short duration. Prakash, Vivek Maize Hybrid 23, COBC 1, Vivek Maize Hybrid 25, HM-4, HIM 129, Hybrid maize 5, Pusa Extra Early Hybrid maize 5, DHM 109, MTH-14, RCM 1-1, VL Makka 42, RCM 1-3, MLY & Golden baby.

**Climate Requirement for Baby Corn Farming:**

Baby corn crop requires good sunlight with temperature range of 22°C to 28°C for optimal growth. This crop does not grow well in high temperature regions exceeding 30°C. However there are baby corn varieties developed for low chilling areas.

3.7. Bitter Gourd
Bitter gourd is one of the most popular vegetable in India. It is grown extensively throughout India; the bitter gourd has good medicinal value as well.

**Varieties of Bitter Gourd Cultivated in India** - Co 1, MDU 1, COBgoH 1 (Hybrid), ArkaHarit, Priya and Preethi are mainly cultivated.

**Climate of Bitter Gourd Farming** - Mainly a warm season plant, bitter gourd thrives in hot and humid climates.

**Best Soil for Bitter Gourd Farming** - The best medium for the seeds is a fertile, well-drained soil with a pH ranging from 5.5 to 6.7, enriched with organic matter, such as compost or dried manure. But it will tolerate any soil that provide a good drainage system (sandy loam soil, but it will grow in areas with poorer soils.) It should be in a frost-free area and will prefer the climate with daytime temperatures between 24 C and 35 C. The soil must be prepared well by adding organic matter before planting. Seeds soaked in water will germinate sooner. Soil temperature for germination is at least 20 C to 25 C.

### 3.8. Red Capsicum

![Red Capsicum](image)

Coloured capsicum which also knows as “sweet pepper” or “bell pepper” is one of the important high value vegetable crops cultivated in green houses and to the some extent under shade net house in milder climatic regions like Bangalore, Pune etc. It is rich in vitamin-A, C and minerals. Capsicum cultivation is very popular in Peri-Urban production systems because of easy access to urban markets in India like Bangalore, Hyderabad, Pune etc. It is also gaining importance in Goa state due to ready market available throughout the year.
Harvesting and yield of Capsicum:- Harvesting of capsicum fruits starts from 60 days of planting in case of green colour capsicum, 80-90 days in case of yellow and red fruited hybrids. Harvesting continues up to 170-180 days at 10 days interval in green and up to 200-250 days in red and yellow. Fruits that are mature green, yellow when it is 75% yellow and red when it is 100% red are harvested and kept in cool place.

3.9. Carrot

Carrots are easy to grow in a garden with deep, loose soil; and as you may have guessed from the name, they are packed with beta carotene. A 1/2 cup serving gives you four times the Recommended Daily Allowance of vitamin A in the form of beta carotene. Growing and harvesting carrots is a great way to take advantage of their nutritional benefits. Carrot Farming plays major role in Indian economy as it is major vegetable crop in India.

**Best Soil for Carrot Farming** - Carrot is a cool climate season crop and when grown at 15°C to 20°C will develop a good colour. The carrot crop needs deep loose loamy soil. It requires a pH ranging from 6.0 to 7.0 for higher yielding.

3.10. Cauliflower

Cauliflower is one of popular vegetable and known as “Ghobi or Gobi” in India and this flower belongs to “Cruciferaceae” family often overshadowed by its green cousin broccoli. This edible portion of the cauliflower is called ‘Curd’ surrounded by leaves narrower than those of cabbage. There are two main seasonal types of cauliflower is cultivated in India they are 1) Early season type crop 2) Late season crop. Late cauliflower types are grown for a longer period compared too early crop type.
Some of the health benefits of cauliflower is listed below:

- Cauliflower promotes heart health
- Cauliflower lowers cholesterol levels
- Cauliflower helps in building healthy immune system
- Cauliflower is rich in calcium and minerals
- Cauliflower works as anti cancer agent

3.11. Chilli

Chilli is one of the most valuable crops of India. The crop is grown largely for its fruits all over the India. It is used in India as a principle ingredient of various curries, and chutneys. It is also used for vegetables spices, condiments, sauces and pickles. Dry chillies are used for curry powder. Red colour in chili is due to “Capsanthin”. Pungency in chillies is due to the active constituent “Capsaicin”, an alkaloid, is extracted from chillies and is used to medicine.

**Climate for Chilli Farming**: The chili is a plant of tropical and sub-tropical region. It grows well in warm and humid climate and a temperature of 20-25℃. Low moisture in soil during blossom development and fruit formation causes the bud, deblossom and fruit drops. Excessive rainfall is detrimental to the crops, because it brings about defoliation and rotting of the plant. As a rained crop, it is grown in areas receiving an annual precipitation of 25-30 inches.

**Best Soil for Chilli Farming**: Chilli can be grown in a range of soils, but black soils which retain moisture for long periods are suitable for rain fed crop whereas well drained soils, deltaic soils and sandy loams are good under irrigated condition. However, in hills of Uttarakhand, chillies are grown in a wide range of soils ranging from sandy to clay loam mixed with gravel and coarse sand.
3.12. Ginger

Ginger is a very important commercial crop grown for its aromatic rhizomes which is used both as a spice and a medicine. Ginger of commerce is the dried rhizome. It is marketed in different forms such as raw ginger, dry ginger, bleached dry ginger, ginger powder, ginger oil, ginger oleoresin, ginger ale, ginger candy, ginger beer, brined ginger, ginger wine, ginger squash, ginger flakes etc. Ginger is the rhizome of Zingiber officinale Rosc., a herbaceous perennial belonging to Zingiberaceae, and is believed to be native of south-eastern Asia. Ginger produced in India, goes for domestic consumption and only a small quantity is exported.

3.13. Jackfruit

In India, Jackfruit (Artocarpus heterophyllus) mostly considered as wild fruit and not taken up as a commercial crop. However, its one of the most remunerative fruits in India. Jackfruit cultivation is growing day by day due to market demand and health benefits. Originally it is native to India, but today it spread across tropical regions. Jackfruit belongs to “Moraceae”. This fruit is grown in Malaysia, Burma and some parts of Brazil. Wild jack fruit is grown in Western Ghats of India. Apart from consuming as fresh fruit, this is also used to prepare some special dishes.

**Below are the some of the health benefits of Jackfruit:**

- Jackfruit boosts the immune system
- Jackfruit helps in healthy digestion
- Jackfruit protects against cancer
- Jackfruit is good for eye and skin
- Jackfruit controls the blood pressure
- Jackfruit controls the asthma
- Jackfruit maintains healthy thyroid
- Jackfruit helps in strengthening the bones
- Jackfruit boosts energy and prevents from anemia

### 3.14. Papaya

Papaya also known as “Carica papaya” is a tropical fruit having commercial importance because of its high nutritive and medicinal value. Papaya cultivation had its origin in South Mexico and Costa Rica. Papaya is a popular fruit famous for its high nutritive and medicinal values. It comes early in bearing than any other fruit crop, produces fruits in less than a year and the production of fruits is quite high per unit area. Papaya is cultivated more or less on a commercial scale in the foothills and plain valleys of all states of the north eastern region. Papaya is planted during spring (February-March), monsoon (June-July) and autumn (October-November).

### 3.15. Strawberry

Strawberry (Fragariavesca) is an important fruit crop of India and its commercial production is possible in temperate and sub-tropical areas of the country. but
varieties are available which can be cultivated in subtropical climate. In India it is generally cultivated in the hills. Its main center of cultivation are Nainital (district) and Dehradun in Uttar Pradesh, Mahabaleshwar (Maharashtra), Kashmir Valley, Bangalore and Kalimpong (West Bengal). In recent years, strawberry is being cultivated successfully in plains of Maharashtra around Pune, Nashik and Sangali towns. The strawberry is the most widely adapted of the small fruits. Strawberries are grown throughout Europe, in every state of the United States, as well as in Canada and South America. The wide variation in climates within these regions and the wide adaptation of the strawberry plant permit harvesting and marketing, the fruit during greater part of the year. Strawberry is rich in Vitamin C and iron. Some varieties viz. Olympus, Hood & Shuksan having high flavour and bright red colour are suitable for ice-cream making. Other varieties like Midway, Midland, Cardinal, Hood, Redchief and Beauty are best for processing.

4. **Project Plan**

The company is setting up a processing plant admeasuring 1,00,000 sq.ft area in Karjat. The company has tied up with farmers having around 100+ acres of land near the processing plant. The location of the land (Chai) is as given below:
There is a lake named Morbe lake passing near by the location. The lake is a perennial lake having water across the year. Thus, there is no issue for water availability. The Mumbai JNPT port is 75 kms (1.5 hours drive) away from the location of the land and the state highway is 1.5 kms away from the location of the land. Thus, the proximity of the land is very good.

The company has entered into agreement with an international company who will provide the seeds and fertilizers required to grow the necessary products. They will also buy the final processed and canned products from us. Also, the company will enter into a contract farming agreement with the farmers to provide the company with the raw products at a fixed price during the year. A sample agreement will be shared with the financial institutions.

**Project Schedule:**

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<th>July</th>
<th>August</th>
<th>September</th>
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<td>Construction of Factory Shed</td>
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<td>Plant &amp; Machinery Procurement</td>
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<td>Growing of Products by farmers</td>
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<td>Processing of Products</td>
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The company will start the construction of the factory shed from the month of August and start procuring process of plant & machinery from the month of August as well. The farmers will start the work of growing products on their land by the month of September / October depending upon the product requirements and climatic conditions. Based on that working, the company will draw the working capital limit from the bank. The company will need to pay initially to procure the seeds and fertilizer to give it to farmers and then procure the produce from the. In both this cases, the payment will have to be made in advance for which there is a need for working capital.

**Sales and Marketing:**

The company plans to have both domestic and export market for its products. Internationally, the company has already tied up to sell its products. The payment cycle will be conducive for the company in the export markets. In the domestic market, the company plans to sell the produce in retail and modern trade market like ‘More’ of
Aditya Birla, Reliance Fresh, D Mart, V Mart etc. Looking at the opportunity of inline grocery store, the company intends to tie up with Big Basket as well. The company intends to build a strong sales and marketing team.

5. **Industry**

India has been bestowed with wide range of climate and physio-geographical conditions which ensures availability of most kind of fruits and vegetables. The country is the second largest producer of the Fruits (81.285 Million tonnes) and vegetables (162.19 Million tonnes) in the world, contributing 12.6% and 14.0% of the total world production of fruits and vegetables respectively. (Source: Source FAO Website- February 2014 and Indian Horticulture Database 2013)

Banana, mango, citrus, papaya, guava and grape account for major share in total fruit production across India. The major fruit producing states are Andhra Pradesh, Maharashtra, Karnataka, Bihar, Uttar Pradesh, Tamil Nadu, Kerala and Gujarat. These eight states account for 70 per cent of the area under fruit cultivation. Potato, tomato, onion, brinjal, cabbage, cauliflower and tapioca account for maximum share in vegetable production in the country. India is a front runner in many fruits and vegetables with share in world production (Indian Horticulture Database 2013)as follows:

- 44.1% of mango
- 42.6% Papaya
- 25.6% of banana
- 20.2% of onion
- 35.6% of cauliflower
- 37% of Okra

Out of the total production of fruits and vegetables, nearly 76 per cent is consumed in fresh form, while wastage, and losses account for 20 to 22 per cent. Only 2 per cent of vegetable production and 4 per cent of fruit production are being processed. This is in sharp contrast to the extent of processing of fruits in several other developing countries such as Brazil (70 per cent), Malaysia (83 per cent), Philippines (78 per cent) and Thailand (30 per cent).
The vast production base offers India tremendous opportunities for export. During 2013-14, India exported fruits and vegetables worth Rs. 8760.96 crores which comprised of fruits worth Rs. 3298.03 crores and vegetables worth Rs. 5462.93 crores. Mangoes, Walnuts, Grapes, Bananas, Pomegranates account for larger portion of fruits exported from the country while Onions, Okra, Bitter Gourd, Green Chilles, Mushrooms and Potatoes contribute largely to the vegetable export basket. The major destinations for Indian fruits and vegetables are UAE, Bangladesh, Malaysia, UK, Netherland, Pakistan, Saudi Arabia, Sri Lanka and Nepal. The country has exported 2,87,384.63 MT of processed fruits and vegetables to the world for the worth of Rs. 2,266.66 crores during the year 2013-14. The major export destinations are United States, Saudi Arabia, United Kingdom, Netherland, United Arab Emirates and Japan. India is also a major exporter of Mango Pulp in the world. The country has exported 174,860.34 MT of Mango Pulp to Saudi Arabia, Yemen Republic, Netherland, United Arab Emirates and Sudan for the worth of Rs. 772.97 crores during the year 2013-14. India is also a prominent exporter of dried and preserved vegetables to the world. The country has exported 56,158.40 MT of dried and preserved vegetables to Germany, Russia, United Kingdom, United States, France and Brazil for the worth of Rs. 742.74 crores during the year 2013-14.(Source: APEDA)

The fruit and vegetable processing industry in India is highly decentralized. A large number of units are in the small scale sector, having small capacities upto 250 tonnes/annum though big Indian and multinational companies have capacities in the range of 30 tonnes per hour or so. The prominent processed items are fruit pulps and juices, fruit based ready-to-serve beverages, canned fruits and vegetables, jams, squashes, pickles, chutneys and dehydrated vegetables. More recently, products like frozen pulps and vegetables, frozen dried fruits and vegetables, fruit juice concentrates and vegetable curries in restorable pouches, canned mushroom and mushroom products have been taken up for manufacture by the industry.
Processing of fruits and vegetables in India holds tremendous potential to grow, considering the still nascent levels of processing at present. Though India’s horticultural production base is reasonably strong, wastage of horti produce is sizeable. Processing and value addition is the most effective solution to reduce the wastage. Considering the wide-ranging and large raw material base that the country offers, along with a consumer base of over one billion people, the industry holds tremendous opportunities for large investments.

**Opportunity in Food Processing**

The Indian food processing industry is primarily export oriented. India’s geographical situation gives it the unique advantage of connectivity to Europe, the Middle East, Japan, Singapore, Thailand, Malaysia and Korea. One such example indicating India’s location advantage is the value of trade in agriculture and processed food between India and Gulf region. Various products, such as tomato puree, canned fruit, frozen fruit, frozen vegetables and ginger-garlic pastes, gained popularity among Indian consumers. Frozen and canned/preserved food products are proving to be better alternatives to fresh foods due to the convenience of storage and usage they offer. Demand for fresh, chilled and processed fruits and a vegetable is also increasing in modern retail. Even some small retailers have started keeping refrigerators to stock frozen peas or corn. This trend is likely to continue over the forecast period and will help drive sales and penetration of processed fruits and vegetables in India.

**Government Policy:**

100% FDI is allowed under automatic route in food processing industry and food infrastructure including food parks, distillation & brewing of alcohol, cold storage chain and warehousing. Five-year tax holiday for new food processing units in fruits and vegetables processing along with other benefits in the budget has bolstered the government’s resolution of encouraging growth in this sector.
India is the second largest arable land holder in the world with 161 million tonnes. With 20 agri-climatic regions, India has the 15 major climates in the world exist in India. The country also possesses 46 of the 60 soil types in the world.

- India is the largest producer of milk and second-largest producer of fruits and vegetables.
- India has the largest livestock population across the globe which is equal to 512 million, including 119 million milch (in-milk and dry) animals, 80.06 million goats, and 44.56 million sheep in FY15. The segment contributes about 25 per cent to the country’s farm GDP.
- Consumer spending in 2015 was USD1 trillion; it is likely to reach USD3.6 trillion by 2020.
- Strategic geographic location and proximity to food importing nations favour India in terms of exporting processed foods.

ADVANTAGE INDIA -

2015E
India’s food processing industry: USD256 billion

- Strong demand growth
  - Demand for processed food rising with growing disposable income, urbanisation, young population and nuclear families
  - Household consumption set to double by 2020
  - Changing lifestyle and increasing expenditure on health and nutritional foods

2020E
India’s food processing industry: USD452 billion

- Food processing hub
  - India benefits from a large agriculture sector, abundant livestock, and cost competitiveness
  - Investment opportunities to arise in agriculture, food infrastructure, and contract farming
  - Diverse agro-climatic conditions encourage cultivation of different crops

- Increasing investments
  - Government expects USD21.9 billion of investments in food processing infrastructure by 2015
  - Investments, including FDI, would rise with strengthening demand and supply fundamentals
  - Launch of infrastructure development schemes to increase investments in food processing infrastructure

- Policy support
  - Sops to private sector participation; 100 per cent FDI under automatic route
  - Investment in April 2006
  - September 2015 period stood at USD9.54 billion
  - Promoting rationalisation of tariff and duties relating to food processing sector
  - Setting up of National Mission on Food Processing
The unorganised sector accounts for 42 per cent of India’s food processing industry. The sizeable presence of small-scale industries points to the sector’s role in employment generation. Though the market falls under the unorganised sector in the country, the organised sector has a larger share in the secondary processing segment than the primary one. Rice mills account for the largest share of processing units in the organised sector.
FOOD PROCESSING IS A KEY CONTRIBUTOR TO EMPLOYMENT GENERATION IN INDIA –

- Policymakers have identified food processing as a key sector in encouraging labour movement from agriculture to manufacturing
- As per Annual Survey of Industries for 2012–13, there were 1.6 million persons engaged in registered food processing sector
- During FY08–13, employment in the registered food processing sector rose at a CAGR of 1.3 per cent
- Food products generated the highest employment in the country in 2011-12 (12.1 per cent)
- By 2024, food processing sector is expected to employ 9 million people in India

FRUITS & VEGETABLES AVAILABILITY MAP – MAHARASHTRA

Maharashtra is a leading state in production of Grapes in the whole country. The state also accounts for nearly 80% of the Grapes exports from India. Maharashtra is also the largest producer of Alphonso Mangoes, the most sought after variety for exports.