



SYNOPSIS

IQF PROCESSING PLANT

India is the second largest producer of fresh vegetables and third largest producer of fruits. Less than 2% of India's total horticulture produce is processed, implying high wastage. Roughly around 30-40% of fruits and vegetables perish due to inadequate processing and improper packaging and transportation.

Vegetables like potatoes, green peas, corn, cabbage, okra, beans, tomato etc. can be frozen with IQF process and can be stored in the cold stores and refrigerated rooms – 20°C for storage purposes.

MARKET

Over the years volume of exports of frozen fruits and vegetables from India have increased manifold. Main importing countries are UK, USA, Canada, Australia, New Zealand and other Western European countries. Product basket has also increased to cover more value added products. Currently, ranges of products are :

- Vegetables - Peas, Cabbage, Cauliflower, Baby Corn, Corn, French Beans, Okara, Potato, Tomato, etc.
- Fruits – Strawberry, Grapes, Litchi, Kiwi, etc,

The national market for IQF peas and potatoes is quite sizeable. India currently exports 44,000 MT of Frozen Vegetables amounting to Rs. 112 crores of exports and the frozen peas and potatoes are in short supply at present. Some fast food chains are still importing the product from abroad.

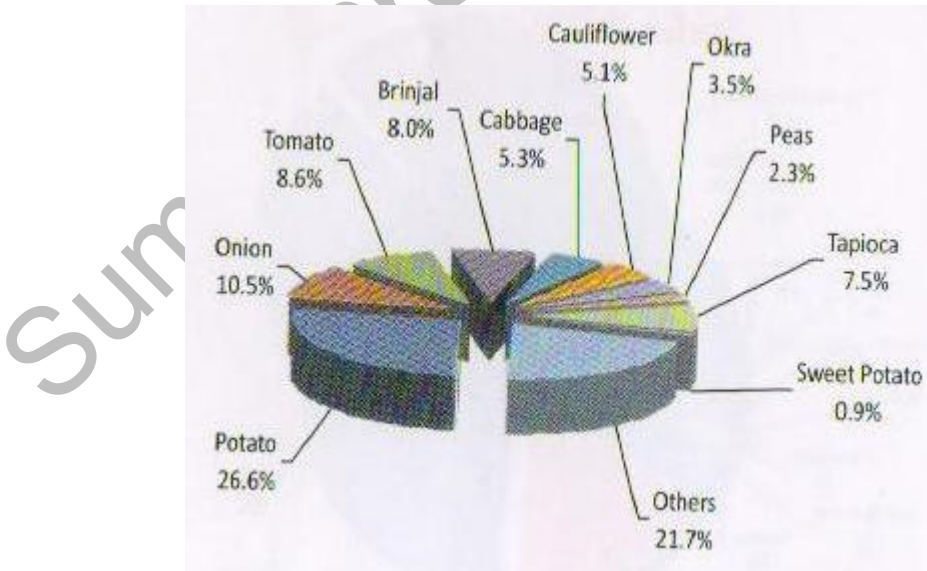


RAW MATERIAL :

Area in 000' HA, Production in 000' MT and Productivity = MT/HA

	2006-07			2007-08			2008-09		
	AREA	PRODUCTION	PDY.	AREA	PRODUCTION	PDY.	AREA	PRODUCTION	PDY.
Potato	1743	28600	16.4	1795	34658	19.3	1828	34391	18.8
Onion	768	10847	14.1	821	13900	16.9	834	13565	16.3
Tomato	596	10055	16.9	566	10303	18.2	599	11149	18.6
Brinjal	568	9453	16.6	561	9678	17.2	600	10378	17.3
Cabbage	249	5584	22.4	266	5910	22.2	310	6870	22.1
Cauliflower	302	5538	18.3	312	5777	18.5	349	6532	18.7
Okra	396	4070	10.3	407	4179	10.3	432	4528	10.5
Peas	297	2402	8.1	313	2491	8.0	348	2916	8.4
Tapioca	255	8232	32.2	270	9056	33.6	280	9623	34.3
Sweet Potato	123	1067	8.7	123	1094	8.9	124	1120	9.0
Others	2282	29146	12.8	2414	31402	13.0	2275	28006	12.3
Total	7581	114993	15.2	7848	128449	16.4	7981	129077	16.2

PRODUCTION SHARE OF MAJOR VEGETABLES IN INDIA (2009)





PROCESS

Based on the mechanical structures used for the conveyance of the raw materials, IQF machinery is of two types:

- Conveyor type, where the air flow is from top to bottom or vice versa and
- Spiral type

The refrigerant used can be Ammonia, Liquid Nitrogen, Freon (Refrigerant-22) or brine, based on which, modifications are made in the machinery.

The raw materials (vegetables) are cleaned and made to ultimate product such as cuts, slices, cubes, florettes, Pea Grains etc., washed, weighed, and blanched and then cooled. Thereafter, loaded on to a conveyor and process continued till the core temperature is below -18°C . The product is finally stored at -20°C till shipment. The freezing depends on the thickness of the raw materials.

PLANT CAPACITY

Annual capacity of the plant could be 2 MT / Hr (input capacity) based on 3 shift basis working for 300 days only.

INFRASTRUCTURE AND FACILITIES

1.	Land	:	3 Acre
2.	Building	:	4000 Sq.M
3.	Power	:	300 kW
4.	Manpower	:	50 Nos

PROJECT COST

The total project cost of IQF plant is expected to be Rs 13 – Rs. 15 crores.



Sales Realisation Around	-	Rs. 30 Cr.
Break Even Around	-	3 rd Year
ROI	-	28 %

IT SHOULD BE NOTED THAT THE ABOVE MENTIONED FIGURES AND INFORMATION IS TENTATIVE. CONSULTANTS RECOMMEND TECHNO-ECONOMIC FEASIBILITY REPORT TO UNDERSTAND EXACT DETAILS TO THE ABOVE MENTIONED INFORMATION.

FOR FURTHER DETAILS PLEASE CONTACT.

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