

Tomato Processing and Tomato based Value added Products

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Introduction

Tomato, though botanically a fruit for the purpose of trade, is generally considered a vegetable because of the way in which it is consumed. Tomatoes are widely grown in all parts of the world. Tomatoes are produced and processed during the two main seasons across much of India – August to October (kharif) and December to April (rabi). Where conditions suit, tomatoes are also grown during the off-season (May to July) including under protected cultivation though given the low volumes of production, prices are often the highest during this period.

Tomato fits easily into different cropping systems, has high economic value and fruits can be processed, dried, canned and bottled. Moreover, tomatoes contribute to a healthy, well-balanced diet primarily. Tomatoes are rich in potassium, magnesium, phosphorus and small amounts of calcium. Tomatoes contain a lot of vitamin A, vitamin C and vitamin B3.

They have small amounts of other B vitamins, and vitamin E.

Tomato-based processed food consumption in India is growing at an annual rate of over 30% creating massive demand for existing processors like Hindustan Unilever and Nestle, ushering in the entry of new market players like Kagome and creating new prospects for product imports. Many of these processors are pursuing efforts to build up improved supply chain mechanisms to increase the share of locally processed paste and other inputs for production.

Much of India's tomatoes are grown by many smallholder farmers (estimated at near to half of India's farming community) with holdings of between 1-3 acres of land. The southern and central states constitute much of India's production including the states of Andhra Pradesh, Telangana, Karnataka and Maharashtra. Tomato production is a growing category worldwide, with consumers

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demanding a wider range of innovative, value-added products, while demands on your production to handle wide quality variations in raw tomato pastes are also increasing.

Market potential

Due to increasing standards of living in the cities and the rapid urbanization taking place in the rural areas, consumption of tomato-based products is expected to go up steadily. At present, the market of ketchup/puree, especially in the urban areas, is dominated by brands like MEGGI and KISSAN. Some Medium and Small Companies are also engaged in its production. Estimated production of Sauce/Ketchup etc. in North India was around 4000 MT in 1995. The estimated demand for the products for the same period was 10000 MT which is expected to grow up to 12000 MT by 2005 AD. Thus, presence of a demand supply gap of 6000 MT can be observed which may reach a figure of 8000 MT in 2005 AD. Thus, there is ample scope for a unit to come up in this product sector to cater especially to the semi urban and rural sectors of north India. Tomato processing in India is still not very significant. Recently, there was a steady rise in production due to the entry of multinationals with better market infrastructure and sales promotion campaigns.

With high fluctuation in market prices of fresh tomatoes in the urban market, there are good prospects for tomato juice, and

tomato puree in place of fresh tomatoes in household sector. Besides the boom in the food service sector including fast food chain, has widened the demand potential for tomato ketchup and soups.

Experiments have shown that advertisement and publicity have influenced the pattern of consumption of tomato products. Besides, tomato products have good export potential especially in the Middle East.

Basis and presumptions

1. The Project Profile has been prepared based on single shift of 8-hrs. a day and 25- working days in a month at 75% efficiency.
2. It is presumed that in the 1st year, the capacity utilization will be 70% followed by 85% in the next year and 100% in the subsequent years.
3. Depreciation on machinery and equipment's has been taken @ 10%. Depreciation on office furniture has been taken @ 20% per annum.
4. The rates given for salaries and wages for skilled workers and others are on the basis of the minimum rates in the State of U.P.
5. Interest rate for the fixed and working capital has been taken @ 14% on an average whether financed by the bankers or financial institutions.

6. The margin money required is minimum 30% of the total capital investment.
 7. The rental value for the accommodation of office, workshop and other covered area has been taken @ Rs. 20/- per Sq. Mtr.
 8. The rates for machinery, equipment and raw materials are those prevailing at the time of preparation of the project profile and are likely to vary from place to place and supplier to supplier. When a tailor-made project profile is prepared, necessary changes are to be made.
 9. The payback period may be 5- years after the initial gestation period.
 10. The gestation period in implementation of the project may be to the tune of 6 to 9 months which includes making all arrangements, completion of all formalities, market surveys and tieups etc. Once all the above arrangements are made and quality/standards achieved, 100% project capacity may be achieved at the end of three years.
 11. To run the unit throughout the year, other fruit products such as squashes and juices can be prepared with addition of a few machineries and equipment.
- a) Value-added tomato-based products – innovative flavours and ingredients, convenient meal-component sauces
 - b) More natural products – with fewer additives and preservatives
 - c) Cost-effective, flexible production of a wide range of high-quality products
Product examples: passata, purée, paste, salsa, pizza sauce, ketchup, juice and soup.

Tomato processing industry is huge. A large part of the world tomato crop is processed into tomato paste, which is subsequently used as an ingredient in many food products, mainly soups, sauces and ketchup. India has been exporting processed tomato in the form of tomato paste and ketchup. Tomato sauce is being used with snacks like rolls, cutlets, samosas, chops, soup, chowmin and other Continental as well as Chinese dishes. Bright mixture made from tomato is used as important items with all modern food/snacks. The only ketchup and sauce market in India is pegged at Rs 1,000 crore and growing at around 20% year-on-year. There is a big market for the processed tomato products. Tomato products are one of the chief ingredients in ready-to-eat or fast-food products.

Tomatoes are an important crop for both the farmer and the consumer in India. It grows in almost every state of the country.

This places high demands on your production, and especially on your mixing technology. Growing trends in tomato preparation production:

Due to increasing standards of living in the cities and the rapid urbanization taking place in the rural areas, consumption of tomato-based products is expected to go up steadily. Domestic producers of this item state that the major institutional customers of tomato paste are restaurants. At present, the market of ketchup/puree, specially in the urban areas, is dominated by brands likes MEGGI and KISSAN. Some Medium and Small Companies are also engaged in its production.

Tomato Concentrate & Ketchup:

Tomato ketchup have delicious taste, flavour and a bright red colour. It is liked by all persons and is used widely with other eatables to give very good taste and flavour. It has very good domestic use and having a good demand in hotels and restaurants to serve the customers and preparation in different foods.

Tomato Paste (Tomato Concentrate): Tomatoes are low in calories and a good source of vitamin C and antioxidants. With their rich flavor and mild acidity, tomatoes have worked their way into thousands of recipes. Products, such as tomato paste/puree have potential demand with local fruit / vegetable processors as well as the retail market.

Tomato Ketchup, Tomato Sauce and Tomato Soup:

The fruit and vegetable group is the single largest item in the national statistics on private final consumption expenditure in domestic market. Tomato ketchup, Tomato soups and Tomato sauce are all palatable foods used in all hotels, restaurants and houses.

Packaging of Tomato Paste: Tomato paste and puree are commonly consumed



Tomato Processing Plant



commodities in every household. In the field of packaging thermoplastic film has been widely accepted as an efficient flexible packaging material. Tomato Paste is the main product of processed tomatoes which is used as a raw material to make ketchup, sauces and other tomato related products.

Tomato Pulp: Tomato pulp is very much popular item derived from tomato fruit. It is a ground form of tomato having only 6% solid content. A wide variety of products are available by processing tomato pulp. Tomato pulp is used to produce a wide variety of tomato products like sauce, ketchup, juice, etc.

