

## **1 TUTTY-FRUITY**

### **1.1 Introduction**

Tutty-fruity is made from unripe papaya fruit and contains substantial quantum of sugar. It is used as an additive in ice-cream and some sweets but its major consumption is in paan masala and some fresheners or "Mukhwas". It is a mass consumption item across the country. Children & young generation are very fond of it.

### **1.2 Objective**

The primary objective of the model report is to facilitate the entrepreneurs in understanding the importance of setting up unit of Tutty Fruity, technology and financial parameters of various components for preparation and submission of project proposal to bank for sanction of long term loan. This model report will serve as guidance to the entrepreneurs on starting up such a new project and basic technical knowledge for setting up such a facility.

### **1.3 Products**

Tutty-fruity is consumed by all and sundry as it is added in paan and after-mint and some other milk preparations like ice-cream and shrikhand. Chewing of paan or paan masala especially after meals is a typical Indian habit and many non-tobacco pan eaters like this product. It is generally available in pinkish colour. This product can be manufactured across the country but this note is pertaining to MP as reportedly there are very few producers and demand is increasing.

### **1.4 Raw Material Availability**

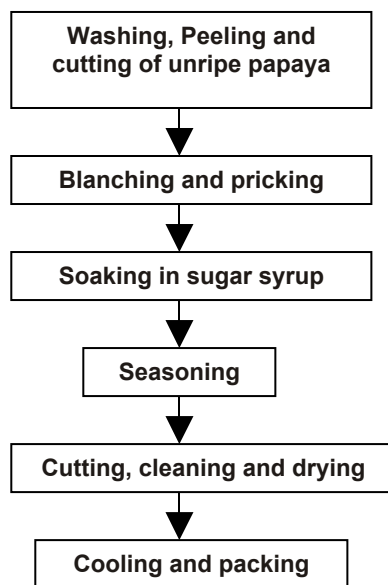
Papaya is grown in considerable quantity in MP. The area of MP in the year 2004-05 is 684 ha and production 18500 MT.

### **1.5 Market Opportunities**

It is a mass consumption item consumed in all parts of the country by all sections of people. It is generally not consumed alone (except occasionally by kids) but added to paan or masalas or sweet preparations. Its sweet taste and flavour is liked by many. It is not produced in large quantities as the market is completely scattered and servicing of this vast size beyond manageable distances is neither feasible nor economical. Hence, there are many local manufacturers catering to limited markets. This unit in MP can capture the market very easily.

### **1.6 Process Description**

Big and unripe papaya is washed and then their outer skin is removed with the help of peeling machine. They are then cut length-wise and seeds and fibres are removed. These pieces are blanched in boiling water for 8-10 minutes and after cooling they are pricked with forks so that sugar syrup gets absorbed easily. The sugar syrup is made of 30% sugar solution with 3% citric acid. Pieces of papaya are added in boiling syrup and kept for about 10 minutes. Then these pieces are kept for around 8-10 hours. To impart colour and flavour, different colours and flavours are added to the syrup. Dried pieces are further cut into smaller sizes and are wiped with wet cloth for removing any dirt or excessive coating of sugar. These pieces are finally dried in a drier with temperature around 60°C for about 10 minutes and on cooling are packed in polythene bags. The process flow chart is as under:



### 1.7 Availability of know how and compliances

Compliances under the FPO and PFA Act are mandatory.

### 1.8 Capacity of Plant

The installed capacity would be 84 tonnes per year whereas actual capacity utilisation has been taken at 65% and 90% respectively during first two years and thereafter 100%.

### 1.9 Project component and cost

Major components of the projects and their costs are described in the table hereunder:

Particulars	Unit	Qty	Cost/unit	Total
<b>LAND &amp; BUILDING</b>				<b>9.94</b>
Land	SqM	225	250.00	0.56
<b>Land Development</b>				
Land Area		225	500.00	1.13
<b>Building</b>				
<b>Production Block</b>				
Main Production Area	SqM	100	5,000.00	5.00
Store cum packing room & Sales Counter	SqM	50	5,000.00	2.50
Contingencies		10%		0.75
<b>PLANT &amp; MACHINERY</b>				<b>1.30</b>
Papaya Peeling machine		1	30,000.00	0.30
Papaya slicing and cubing machine		1	35,000.00	0.35
Diesel Furnace		1	12,000.00	0.12
Electrically operated driers		1	30,000.00	0.30
Heat Sealing Machine		1	2,000.00	0.02
Contingencies		20%		0.21
<b>MISCELLANEOUS FIXED ASSETS</b>				<b>0.30</b>
Misc. Assets	LS	1	25,000	0.25
Contingencies		20%		0.05
<b>PRE-OPERATIVE EXPENSES</b>				<b>3.82</b>
Establishment		1	252,000	2.52
Professional Charges		1	50,000	0.50
Security Deposits		1	80,000	0.80
<b>TOTAL</b>				<b>15.36</b>

The cost of the various components will depend on the location of the project. Item wise assumptions are as under:

### 1.10 Plant and Machinery

The main machineries are peeling machine, electrically operated driers, heat sealing machine etc. The total cost of plant and machinery is Rs. 1.30 lakhs.

### 1.11 Building

The main production block will cost around Rs. 8.25 lakhs. The entire building will be divided into two zones – production and storage cum packing room.

### 1.12 Miscellaneous Assets

A provision of Rs. 30000/- would take care of all the requirements.

### 1.13 Preliminary & Pre-operative Expenses

A provision of Rs. 2.16 lakhs would take care of pre-production expenses like establishment, professional charges, security deposits etc.

### 1.14 Working Capital Requirement

ITEMS	Year 1	Year 3	Year 5
-------	--------	--------	--------

STOCK OF RAW MATERIAL & PACKING MATERIAL	0.48	0.74	0.74
SUNDRY DEBTORS	3.59	5.52	5.52
<b>TOTAL</b>	<b>4.07</b>	<b>6.26</b>	<b>6.26</b>
<b>MARGIN</b>	1.02	1.57	1.57
<b>MPBF</b>	3.05	4.70	4.70
<b>INTEREST ON WC</b>	0.34	0.52	0.52

### 1.15 Means of Finance

The means of finance will be Rs 16.38 lakhs.

<b>EQUITY CAPITAL</b>			35.00%	<b>5.73</b>
<b>MOFPI SUBSIDY</b>	25%	50.00	25.00%	<b>4.09</b>
<b>TERM LOAN</b>				
FINANANCIAL INSTITUTIONS		10.00%	40.00%	<b>6.55</b>
-Payable half yearly Installments	10	0.70		
<b>TOTAL</b>			100%	<b>16.38</b>

### 1.16 Cash flow statement

PARTICULARS	Year 1	Year 3	Year 5	Year 7
<b>SOURCES OF FUNDS</b>				
EQUITY CAPITAL	-	-	-	-
SUBSIDY				
NET PROFIT	1.17	4.90	4.32	3.75
(INTEREST ADDED BACK)				
DEPRECIATION	0.46	0.46	0.46	0.46
PRELIMINARY EXP.W/O	0.55	0.55	0.55	0.55
INCREASE IN TERM LOAN	-	-	-	-
INCREASE IN BANK BORROWINGS-WC	3.05	0.47	-	-
<b>TOTAL</b>	<b>5.23</b>	<b>6.37</b>	<b>5.33</b>	<b>4.75</b>

### 1.17 Profitability statement

Particulars	Year 1	Year 3	Year 5	Year 7
<b>INCOME</b>	19.93	30.66	30.66	30.66
<b>EXPENDITURE</b>	17.76	24.76	25.33	25.91
<b>VARIABLE</b>	10.62	16.06	16.06	16.06
<b>FIXED</b>	7.14	8.70	9.27	9.85
<b>GROSS PROFIT</b>	2.17	5.90	5.33	4.75
<b>PROFIT BEFORE TAX</b>	0.18	3.97	3.67	3.23
<b>RETAINED PROFIT</b>	<b>0.18</b>	<b>3.97</b>	<b>3.67</b>	<b>3.23</b>

### 1.18 Key Indicators

NET PRESENT VALUE at current Inflation (Rs. in lakhs)	<b>25.83</b>
INTERNAL RATE OF RETURN %	<b>33.87</b>
AVERAGE DSCR	<b>2.78</b>
BREAK EVEN POINT %	<b>77.88</b>
PAY BACK PERIOD ( YEARS)	<b>3.26</b>

### 1.19 Manpower Requirement

PARTICULARS	NO.
-------------	-----

<b>SUPERVISORY STAFF</b>		
	PRODUCTION SUPERVISORS	2
<b>WORKERS</b>		
	SKILLED WORKERS	2
	SEMI-SKILLED LABOUR	2
	SALESMAN	1

## 1.20 Assumptions

<b>Project &amp; Financing</b>			
Contingencies on Building			10%
Contingencies on Equipment			20%
Term Loan			40%
Rate of Interest on Term Loan			10%
Subsidy Considered	Subject to ceiling		25%
Expected time of Installation		Months	10
Moratorium		Months	6
<b>CAPACITY</b>			
Rated Capacity Per Annum	80% of Installed capacity	TPA	84
Number of Operational Days	DAYS		250
Working Hours Per day	Hrs		14
<b>CAPACITY UTILIZATION</b>			
Year I			65%
Year II			90%
Year III			100%
<b>SALES PRICE</b>			
W S Price			36500
<b>OTHER EXPENSE</b>			
Commission			5.0%
Marketing Expenses			2.5%
<b>POWER</b>			
Connected Load	HP		20
<b>DEPRICIATION AS PER COMPANY'S ACT</b>			
BUILDING			3.34%
PLANT & MACHINERY			10.34%
MISC. FIXED ASSETS			7.07%
LAND & SITE DEVELOPMENT			1.63%
<b>MAINTENANCE</b>			
BUILDING			2.00%
PLANT & MACHINERY			3.00%
MISC. FIXED ASSETS			2.00%
LAND & SITE DEVELOPMENT			1.50%

## 1.21 Sources of technology

Technology of the project related material handling equipment is available with indigenous companies and could be set up at competitive prices. Major suppliers are understated –

- ❖ **M/s. B. Sen Barry & Co.**  
65/11, New Rohtak Road,  
New Delhi - 110 005.
- ❖ **M/s. Techno Equipments**  
Saraswati Sadan,  
31, Parekh Street,  
Bombay - 400 004
- ❖ **M/s. Raylon Metal Works**  
Ramakrishna Mandir Road  
J.B. Nagar,  
Bombay - 400 013
- ❖ **M/s. Gardeners Corporation**  
6, Doctors Lane  
P.B. No. 299, New Delhi - 110 001
- ❖ **M/s. Ganson (P) Ltd.**  
207, Kakkad Chambers  
Dr. A.B. Road,  
Bombay - 400 018.
- ❖ **M/s. Ganson (P) Ltd.**  
P.B. No. 4517,  
645, Annasalai,  
Chennai - 600 006.
- ❖ **M/s. Chengalva Engineers Ltd.**  
405, Shashank Residency,  
Street No. 11, Tamaka,  
Hyderabad - 500 017 (A.P.)

**The actual cost of projects may deviate on change of any of the assumptions.**