



DETAILED PROJECT REPORT

MAHUA FLOWER JAM UNIT

UNDER PMFME SCHEME



National Institute of Food Technology Entrepreneurship and Management

Ministry of Food Processing Industries

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1. PROJECT SUMMARY

1. Name of the proposed project	:	Mahua Flower Jam Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	108000 Kg/annum (40,45,50,55&60% capacity utilization in 1 st to 5 th Year respectively)
4. Raw material	:	Mahua pulp, Sugar, Pectin, Citric Acid and Sodium Benzoate.
5. Major product outputs	:	Mahua Flower Jam
6. Total project cost	:	Rs. 34.54 Lakh
• Land development, building & Civil Construction	:	Nil
• Machinery and equipment's	:	Rs. 23.05 Lakh
• Miscellaneous Fixed Assets	:	Rs. 2.50 Lakh
• Working capital	:	Rs. 8.99 Lakh
8. Means of Finance		
• Subsidy (max 10lakhs)	:	Rs. 8.94 Lakh
• Promoter's contribution (min10%)	:	Rs. 3.44 Lakh
• Term loan	:	Rs. 14.05 Lakh
• Working Capital Requirement	:	Rs. 8.09 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 st year	:	Rs. 1.96 Lakh
• 2 nd year	:	Rs. 4.62 Lakh
• 3 rd year	:	Rs. 7.28 Lakh
• 4 th year	:	Rs. 9.86 Lakh
• 5 th year	:	Rs. 12.40 Lakh
11. Average DSCR	:	Rs. 2.97
12. Term loan repayment	:	5 Years with 6 months grace period

2. ABOUT THE PRODUCT

2.1. PRODUCT INTRODUCTION:

Madhuca Indica is an Indian originated crop with a wide range of medicinal and health benefits that has yet to be fully explored due to citizen ignorance. The Mahua tree has a lot of medicinal potential for treating various diseases. Mahua (*Madhuca longifolia*) is a member of the Sapotaceae family that can be found in India, Sri Lanka, Myanmar, and Nepal. It's a multipurpose tree that can meet three basic requirements: food, fodder, and fuel. The flowers of the plant are edible and rich in nutritive value, containing a high amount of sugars as well as vitamins, proteins, minerals, and fats. Because of the higher sugar content, the flowers are used to sweeten a variety of traditional Indian dishes such as halwa, kheer, meethi puri, and barfi. The Mahua tree is primarily valued for its oily, fluorescent seeds, which are used in the production of liquor and soft sweets. The spent flowers are often used to feed livestock (after fermentation). A large number of flowers are used in the production of distilled beverages. The freshly cooking beverage has a distinct pungent foetid taste that vanishes with ageing. Mahua flower have several uses as mentioned above apart from that Mahua flowers are rich source of sugars which is responsible for its sweet taste and can be utilized to make indigenous or modern food product. Mahua jam is a tasty and healthy choice for people of all ages.

2.2. MARKET POTENTIAL:

Mahua (*Madhuca longifolia* var. *latifolia*) is a multi-purpose tree that offers a wide range of products to the community. The tree is an important NWFP (Non-timber forest products) species that produce edible products for many faunas as well. The tree is medium to wide in height, with a healthy crown. In 8 to 15 years, the tree matures and begins to bear flowers and fruits. Fruits are ovoid in shape and brown in colour, with elongated seeds. the flowering season lasts from

February to April. Global Mahua and its commodity industry, which was valued at US\$ 1,435.25 billion in 2013, will grow at a 4.3 per cent CAGR from 2014 to 2020, reaching US\$1,937.73 billion. The demand for mahua products is projected to grow at a similar 4.9 percent CAGR in terms of value.

2.3. RAW MATERIAL DESCRIPTION:

The raw material requirement for production of Mahua Flower Jam are mentioned below:

- Mahua Pulp
- Sugar
- Pectin
- Citric Acid
- Sodium Benzoate

S.N.	Particulars	Rate (Approx.)
1	Mahua Pulp	Rs. 35-50/kg
2	Sugar	Rs. 30-35/kg
3	Pectin	Rs. 850-900/kg
4	Citric Acid	Rs. 50-60/kg
5	Sodium Benzoate	Rs. 80-90/kg

Average raw material cost per 1 kg bottle of Jam: Rs. 180-200

3. PROCESS FLOW CHART

The processing of jam involved 2 steps that include

1. Processing of flower
2. Processing of jam

Processing of flower

Collection of flowers:

The fresh flowers fall on the ground early in the morning and are picked up with hands by primary collectors. Occasionally, a long bamboo stick with an anchoring arrangement is used to shake the branches and pluck the flowers from the tree. The floor below the tree has grass and fallen leaves that need to be cleared off before collection.

Pre-processing of flower:

Pre-processing treatment of fresh flowers comprising of washing, manual removal of stamens and blanching with preservatives can be performed. Stamen can be removed from the flowers manually as well as mechanically. The dehydration of flowers can be done in shade drying on trays and under shade netting on black sheets.

Drying:

Collected flowers are spread in a clean place evenly for 3-4 days in sunlight (40 to 43°C) for drying. After the flower is sufficiently dried under the sun, the flowers are beaten with a wooden plank to detach stamens from the flower. The presence of stamen in the Mahua flower gives a bitter taste to the product which is not liked by the consumers.

Storage:

The dried flowers packed in gunny bags are stored in dark rooms which are usually not well ventilated. Mahua flowers show hygroscopicity, i.e. tends to absorb moisture, especially during the rainy season as at that time moisture infiltrates from the earthen floors and roofs. The higher moisture content allows the growth of various spoilage bacteria.

Processing for jam

Cleaning:

The dried flower is taken to factory where raw material are taken to cleaning section, generally the cleaning as done through manually. All the dirt and other foreign matter are removed during this process.

Washing and soaking:

The cleaned raw material are washed in water and then soaked in clean water for 4 to 5 hours.

Pulping:

The water soaked flower are fed to pulper machine where the machine them into an appropriate pulp.

Heating and addition of sugar

The pulp is mixed with sweetener, water, and citric acid during heating. Pulp is heated simultaneously using steam temperature, followed by final boiling in the same or a different vessel. Boiling reduces the amount of water in the mixture and concentrates the mahua pulp and

sugar. A jam's final Total Soluble Solids (TSS) content (also known as "Degrees Brix" or "end-point of the jam") should be between 65 and 68 percent. The end-point of boiling can be determined in a variety of ways. Using a refract meter to calculate the total sugar concentration is the most accurate way. After reaching the endpoint, Remove the jam from the heat otherwise it will continue heating and may become overcooked.

Filling and packaging

Cool the jam to about 85°C and pour into the hot sterilized jars. Fill the jars to about 9/10ths of their volume. Place the clean lids onto the jars, fasten them loosely and invert the jars to sterilize the lid with the hot jam.

Storage:

Jams and jellies that are made according to the correct recipe will have a long shelf life. Jams stored in glass jar will have a long storage life (up to 12 months) than those packed in plastic bottles (up to 4 months). For optimum storage time, jam should be stored in a cool dry place, away from direct sunlight.



4. ECONOMICS OF THE PROJECT

4.1. BASIS & PRESUMPTIONS

1. Production Capacity of Mahua Flower Jam is 400 Kg. per day. First year, Capacity has been taken @ 40%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 7 days and Finished goods Closing Stock has been taken for 7 days.
4. Credit period to Sundry Debtors has been given for 15 days.
5. Credit period by the Sundry Creditors has been provided for 7 days.
6. Depreciation and Income tax has been taken as per the Income tax Act, 1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 20 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.

4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

<u>COMPUTATION OF PRODUCTION OF MAHUA FLOWER JAM</u>		
Items to be Manufactured		
Mahua Flower Jam		
Total working Hours	8	
Plant capacity Per Day	400	Kg
Working days in a month	25	Days
Working days per annum	300	
Wastage Considered	10%	
Raw material requirement	120000	Kg
Final Output per annum after wastage	108000	Kg
Final Product to be packed in 1 Kg Bottles		
Number of Bottles per annum	108000	1 kg Bottle

Production of Mahua Flower Jam		
Production	Capacity	KG
1st year	40%	43,200
2nd year	45%	48,600
3rd year	50%	54,000
4th year	55%	59,400
5th year	60%	64,800






Raw Material Cost			
Year	Capacity Utilisation	Rate (per kg.)	Amount (Rs. in lacs)
1st year	40%	180.00	86.40
2nd year	45%	189.00	102.06
3rd year	50%	198.00	118.80
4th year	55%	208.00	137.28
5th year	60%	218.00	156.96

COMPUTATION OF SALE					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	1,008	1,134	1,260	1,386
Production	43,200	48,600	54,000	59,400	64,800
Less : Closing Stock	1,008	1,134	1,260	1,386	1,512
Net Sale	42,192	48,474	53,874	59,274	64,674
Sale price per bottle	300.00	315.00	331.00	348.00	365.00
Sales (in Lacs)	126.58	152.69	178.32	206.27	236.06

4.3. PREMISES/INFRASTRUCTURE


The approximate total area required for complete factory setup is 3000-4000 Sq. ft. for smooth production including storage area. It is expected that the premises will be on rental.

4.4. MACHINERY & EQUIPMENTS

Machine Name	Description	Machine Image.
Vibrating Pre-Cleaner	It consists of a vibrating sieve that is powered by an exciter, which is powered by an appropriate motor, and it is used to remove the majority of dirt and large impurities from a given flower.	
De-stoner	It's a machine which is used to remove stones from the given grain, widely used in various grain mills in cleaning section.	
Magnetic Separator	It's a type of separator which is used to remove magnetic impurities from given product using powerful electromagnets, used in wide range of industries for separation.	
Vegetable & Fruit Washing Machine	It's water washing class machine which utilizes mainly water, They come in various arrangements & mechanism	
Pulper machine	It's a Pulper machine, used to generate pulp, It utilizes appropriate blade set to grind fruit (flower of mahua) into pulp	

<p>Steam Jacketed Mixer Vessel</p>	<p>It's a mixer class machine, used to mix solution with precision Steam jackets provide appropriate temperature control</p>	
<p>Heating Vessel</p>	<p>It's used to heat the given liquid to required temperature; It is also used to cook many substance to required form.</p>	
<p>Aseptic Jar Filling & Capping Machine</p>	<p>It's basically a filling & capping machine to fill jam in jars, Aseptic environment prevents biological contamination</p>	
<p>Boiler</p>	<p>It's steam generating device which simply produces steam, It utilizes heat generated by burning appropriate fuel.</p>	
<p>Soaking tank</p>	<p>This tank is required for soaking the mahua flower before pulping them.</p>	
<p>Storage bins</p>	<p>These bins are used to store the mahua flower prior to process and also can be used to store grounded powders</p>	
<p>Belt conveyers</p>	<p>Belt conveyers are most commonly used in transportation of bulk materials</p>	

PM FME- Detailed Project Report of Mahua Flower Jam Unit

<p>Material handling and other Equipment's</p>	<p>These Equipment's are used for material handling. Other equipment's like water pumps, motors, etc are also used.</p>	
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Machine	Unit	Rate	Price
Vibrating Pre-Cleaner	1	175000	175000
De-stoner	1	150000	150000
Magnetic Separator	1	225000	225000
Vegetable & Fruit Washing Machine	1	350000	350000
Pulper machine	1	195000	195000
Steam Jacketed Mixer Vessel	1	140000	140000
Heating Vessel	1	90000	90000
Aseptic Jar Filling & Capping Machine	1	600000	600000
Boiler	1	80000	80000
Material handling and other equipment's (Trolley, weighing machine, soaking tank, storage bins, belt conveyors, etc.)	-	300000	300000

Note: Total Machinery cost shall be Rs 23.05 lakh including equipment's but excluding GST and Transportation Cost.

4.5. MISCELLANEOUS FIXED ASSETS

- Water Supply Arrangements
- Furniture & Fixtures
- Computers & Printers

4.6. TOTAL COST OF PROJECT

COST OF PROJECT	
	(in Lacs)
PARTICULARS	Amount
Land & Building	Owned/Rented
Plant & Machinery	23.05
Miscellaneous Assets	2.50
Working capital	8.99
Total	34.54

4.7. MEANS OF FINANCE

MEANS OF FINANCE	
PARTICULARS	AMOUNT
Own Contribution (min 10%)	3.44
Subsidy @35%(Max. Rs 10 Lac)	8.94
Term Loan @ 55%	14.05
Working Capital (Bank Finance)	8.09
Total	34.54

4.8. TERM LOAN: Term loan of Rs. 14.05 Lakh is required for project cost of Rs. 34.54 Lakh

4.9. TERM LOAN REPAYMENT& INTEREST SCHEDULE

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	14.05	14.05	-	-	14.05
	2nd month	14.05	-	14.05	0.13	-	14.05
	3rd month	14.05	-	14.05	0.13	-	14.05
	4th month	14.05	-	14.05	0.13	-	14.05
	5th month	14.05	-	14.05	0.13	-	14.05
	6th month	14.05	-	14.05	0.13	-	14.05
	7th month	14.05	-	14.05	0.13	0.26	13.79
	8th month	13.79	-	13.79	0.13	0.26	13.53
	9th month	13.53	-	13.53	0.12	0.26	13.27
	10th month	13.27	-	13.27	0.12	0.26	13.01
	11th month	13.01	-	13.01	0.12	0.26	12.75
	12th month	12.75	-	12.75	0.12	0.26	12.49
					1.38	1.56	
2nd	Opening Balance						
	1st month	12.49	-	12.49	0.11	0.26	12.23
	2nd month	12.23	-	12.23	0.11	0.26	11.97
	3rd month	11.97	-	11.97	0.11	0.26	11.71

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4th month	11.71	-	11.71	0.11	0.26	11.45
5th month	11.45	-	11.45	0.10	0.26	11.19
6th month	11.19	-	11.19	0.10	0.26	10.93
7th month	10.93	-	10.93	0.10	0.26	10.67
8th month	10.67	-	10.67	0.10	0.26	10.41
9th month	10.41	-	10.41	0.10	0.26	10.15
10th month	10.15	-	10.15	0.09	0.26	9.89
11th month	9.89	-	9.89	0.09	0.26	9.63
12th month	9.63	-	9.63	0.09	0.26	9.37
				1.22	3.12	
3rd	Opening Balance					
1st month	9.37	-	9.37	0.09	0.26	9.11
2nd month	9.11	-	9.11	0.08	0.26	8.85
3rd month	8.85	-	8.85	0.08	0.26	8.59
4th month	8.59	-	8.59	0.08	0.26	8.33
5th month	8.33	-	8.33	0.08	0.26	8.07
6th month	8.07	-	8.07	0.07	0.26	7.81
7th month	7.81	-	7.81	0.07	0.26	7.55
8th month	7.55	-	7.55	0.07	0.26	7.29
9th month	7.29	-	7.29	0.07	0.26	7.03
10th month	7.03	-	7.03	0.06	0.26	6.77
11th month	6.77	-	6.77	0.06	0.26	6.51
12th month	6.51	-	6.51	0.06	0.26	6.25
				0.87	3.12	

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4th	Opening Balance						
	1st month	6.25	-	6.25	0.06	0.26	5.99
	2nd month	5.99	-	5.99	0.05	0.26	5.73
	3rd month	5.73	-	5.73	0.05	0.26	5.46
	4th month	5.46	-	5.46	0.05	0.26	5.20
	5th month	5.20	-	5.20	0.05	0.26	4.94
	6th month	4.94	-	4.94	0.05	0.26	4.68
	7th month	4.68	-	4.68	0.04	0.26	4.42
	8th month	4.42	-	4.42	0.04	0.26	4.16
	9th month	4.16	-	4.16	0.04	0.26	3.90
	10th month	3.90	-	3.90	0.04	0.26	3.64
	11th month	3.64	-	3.64	0.03	0.26	3.38
	12th month	3.38	-	3.38	0.03	0.26	3.12
					0.53	3.12	
5th	Opening Balance						
	1st month	3.12	-	3.12	0.03	0.26	2.86
	2nd month	2.86	-	2.86	0.03	0.26	2.60
	3rd month	2.60	-	2.60	0.02	0.26	2.34
	4th month	2.34	-	2.34	0.02	0.26	2.08
	5th month	2.08	-	2.08	0.02	0.26	1.82
	6th month	1.82	-	1.82	0.02	0.26	1.56
	7th month	1.56	-	1.56	0.01	0.26	1.30
	8th month	1.30	-	1.30	0.01	0.26	1.04
	9th month	1.04	-	1.04	0.01	0.26	0.78
	10th month	0.78	-		0.01	0.26	0.52

			0.78			
11th month	0.52	-	0.52	0.00	0.26	0.26
12th month	0.26	-	0.26	0.00	0.26	-
			0.19		3.12	
DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS				
REPAYMENT PERIOD	6	MONTHS				
	54	MONTHS				

4.10. WORKING CAPITAL CALCULATIONS

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
	2.66	3.10	3.58	4.11	4.67
<u>Raw Material</u>					
	2.02	2.38	2.77	3.20	3.66
Closing Stock	4.67	5.48	6.35	7.32	8.33

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					(in Lacs)
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	4.67				
Less : Creditors	2.02				
Paid stock	2.66	10%	0.27	90%	2.39
Sundry Debtors	6.33	10%	0.63	90%	5.70
	8.99		0.90		8.09
MPBF					8.09
WORKING CAPITAL LIMIT DEMAND (from Bank)					8.09
Working Capital Margin					0.90

4.11. SALARY & WAGES

<u>BREAK UP OF LABOUR CHARGES</u>			
Particulars	Wages	No of	Total
	Rs. per Month	Employees	Salary
Plant Operator	15,000	3	45,000
Supervisor	18,000	1	18,000
Skilled (in thousand rupees)	12,000	2	24,000
Unskilled (in thousand rupees)	8,000	3	24,000
Total salary per month			1,11,000
Total annual labour charges	(in lacs)		13.32

<u>BREAK UP OF STAFF SALARY CHARGES</u>			
Particulars	Salary	No of	Total
	Rs. per Month	Employees	Salary
Administrative Staff	7,000	2	14,000
Manager	18,000	1	18,000
Accountant	15,000	1	15,000
Total salary per month			47,000
Total annual Staff charges	(in lacs)		5.64

4.12 POWER REQUIREMENT

Utility Charges (per month)		
Particulars	value	Description
Power connection required	20	KWH
consumption per day	160	units
Consumption per month	4,000	units
Rate per Unit	10	Rs.
power Bill per month	40,000	Rs.

4.13. DEPRECIATION CALCULATION

COMPUTATION OF DEPRECIATION			(in Lacs)
Description	Plant & Machinery	Miss. Assets	TOTAL
Rate of Depreciation	15.00%	10.00%	
Opening Balance	-	-	-
Addition	23.05	2.50	25.55
Total	23.05	2.50	25.55
Less : Depreciation	3.46	0.25	3.71
WDV at end of Year	19.59	2.25	21.84
Additions During The Year	-	-	-
Total	19.59	2.25	21.84
Less : Depreciation	2.94	0.23	3.16
WDV at end of Year	16.65	2.03	18.68
Additions During The Year	-	-	-
Total	16.65	2.03	18.68
Less : Depreciation	2.50	0.20	2.70
WDV at end of Year	14.16	1.82	15.98
Additions During The Year	-	-	-
Total	14.16	1.82	15.98
Less : Depreciation	2.12	0.18	2.31
WDV at end of Year	12.03	1.64	13.67
Additions During The Year	-	-	-
Total	12.03	1.64	13.67
Less : Depreciation	1.80	0.16	1.97
WDV at end of Year	10.23	1.48	11.70

4.14. REPAIR & MAINTENANCE: Repair & Maintenance is 2.5% of Gross Sale.

4.15. PROJECTIONS OF PROFITABILITY ANALYSIS:

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	40%	45%	50%	55%	60%
<u>SALES</u>					
Gross Sale					
Mahua Flower Jam	126.58	152.69	178.32	206.27	236.06
Total	126.58	152.69	178.32	206.27	236.06
<u>COST OF SALES</u>					
Raw Material Consumed	86.40	102.06	118.80	137.28	156.96
Electricity Expenses	4.80	5.52	6.35	7.30	8.03
Depreciation	3.71	3.16	2.70	2.31	1.97
Wages & labour	13.32	15.32	17.60	20.06	22.47
Repair & maintenance	3.16	3.82	4.46	5.16	5.90
Packaging	2.53	3.05	3.57	4.13	4.72
Cost of Production	113.92	132.93	153.47	176.23	200.05
Add: Opening Stock /WIP	-	2.66	3.10	3.58	4.11
Less: Closing Stock /WIP	2.66	3.10	3.58	4.11	4.67
Cost of Sales	111.27	132.49	152.99	175.70	199.50
GROSS PROFIT	15.31	20.20	25.33	30.57	36.56
	12.10%	13.23%	14.20%	14.82%	15.49%
Salary to Staff	5.64	6.77	8.05	9.01	10.36
Interest on Term Loan	1.38	1.22	0.87	0.53	0.19
Interest on working Capital	0.89	0.89	0.89	0.89	0.89
Rent	3.60	3.96	4.36	4.79	5.27
selling & adm exp	1.84	2.75	3.12	3.92	4.72
TOTAL	13.35	15.58	17.29	19.14	21.43
NET PROFIT	1.96	4.62	8.04	11.43	15.13
	1.55%	3.03%	4.51%	5.54%	6.41%
Taxation	-	-	0.76	1.57	2.73
PROFIT (After Tax)	1.96	4.62	7.28	9.86	12.40

4.16. BREAK EVEN POINT ANALYSIS

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	126.58	152.69	178.32	206.27	236.06
Less : Op. WIP Goods	-	2.66	3.10	3.58	4.11
Add : Cl. WIP Goods	2.66	3.10	3.58	4.11	4.67
Total Sales	129.23	153.14	178.80	206.80	236.62
Variable & Semi Variable Exp.					
Raw Material Consumed	86.40	102.06	118.80	137.28	156.96
Electricity Exp/Coal Consumption at 85%	4.08	4.69	5.40	6.21	6.83
Wages & Salary at 60%	11.38	13.25	15.39	17.45	19.70
Selling & administrative Expenses 80%	1.47	2.20	2.50	3.14	3.78
Interest on working Capital	0.889714	0.889714	0.889714	0.889714	0.889714
Repair & maintenance	3.16	3.82	4.46	5.16	5.90
Packaging	2.53	3.05	3.57	4.13	4.72
Total Variable & Semi Variable Exp	109.91	129.96	151.00	174.24	198.78
Contribution	19.32	23.17	27.81	32.57	37.84
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.72	0.83	0.95	1.10	1.20
Wages & Salary at 40%	7.58	8.83	10.26	11.63	13.13
Interest on Term Loan	1.38	1.22	0.87	0.53	0.19
Depreciation	3.71	3.16	2.70	2.31	1.97
Selling & administrative Expenses 20%	0.37	0.55	0.62	0.78	0.94
Rent	3.60	3.96	4.36	4.79	5.27
Total Fixed Expenses	17.36	18.55	19.76	21.14	22.71
Capacity Utilization	40%	45%	50%	55%	60%
OPERATING PROFIT	1.96	4.62	8.04	11.43	15.13
BREAK EVEN POINT	36%	36%	36%	36%	36%
BREAK EVEN SALES	116.10	122.60	127.09	134.23	142.01

4.17. PROJECTED BALANCE SHEET

PROJECTED BALANCE SHEET					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
opening balance		12.35	14.17	16.46	19.31
Add:- Own Capital	3.44				
Add:- Retained Profit	1.96	4.62	7.28	9.86	12.40
Less:- Drawings	2.00	2.80	5.00	7.00	9.00
Subsidy/grant	8.94				
Closing Balance	12.35	14.17	16.46	19.31	22.72
Term Loan	12.49	9.37	6.25	3.12	-
Working Capital Limit	8.09	8.09	8.09	8.09	8.09
Sundry Creditors	2.02	2.38	2.77	3.20	3.66
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86
TOTAL :	35.35	34.51	34.16	34.45	35.33
<u>Assets</u>					
Fixed Assets (Gross)	25.55	25.55	25.55	25.55	25.55
Gross Dep.	3.71	6.87	9.57	11.88	13.85
Net Fixed Assets	21.84	18.68	15.98	13.67	11.70
Current Assets					
Sundry Debtors	6.33	7.63	8.92	10.31	11.80
Stock in Hand	4.67	5.48	6.35	7.32	8.33
Cash and Bank	2.50	2.71	2.91	3.15	3.50
TOTAL :	35.35	34.51	34.16	34.45	35.33

4.18. CASH FLOW STATEMENT

<u>PROJECTED CASH FLOW STATEMENT</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	3.44				
Net Profit	1.96	4.62	8.04	11.43	15.13
Depreciation & Exp. W/off	3.71	3.16	2.70	2.31	1.97
Increase in Cash Credit	8.09	-	-	-	-
Increase In Term Loan	14.05	-	-	-	-
Increase in Creditors	2.02	0.37	0.39	0.43	0.46
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	8.94				
TOTAL :	42.62	8.25	11.23	14.29	17.70
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	25.55				
Increase in Stock	4.67	0.81	0.87	0.96	1.02
Increase in Debtors	6.33	1.31	1.28	1.40	1.49
Repayment of Term Loan	1.56	3.12	3.12	3.12	3.12
Drawings	2.00	2.80	5.00	7.00	9.00
Taxation	-	-	0.76	1.57	2.73
TOTAL :	40.11	8.04	11.03	14.05	17.35
Opening Cash & Bank Balance	-	2.50	2.71	2.91	3.15
Add : Surplus	2.50	0.21	0.20	0.23	0.35
Closing Cash & Bank Balance	2.50	2.71	2.91	3.15	3.50

4.19. DEBT SERVICE COVERAGE RATIO

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	5.67	7.78	9.98	12.16	14.37
Interest on Term Loan	1.38	1.22	0.87	0.53	0.19
Total	7.05	9.00	10.86	12.69	14.56
<u>REPAYMENT</u>					
Instalment of Term Loan	1.56	3.12	3.12	3.12	3.12
Interest on Term Loan	1.38	1.22	0.87	0.53	0.19
Total	2.94	4.34	4.00	3.65	3.31
DEBT SERVICE COVERAGE RATIO	2.40	2.07	2.72	3.48	4.40
AVERAGE D.S.C.R.	2.97				