



Model Detailed Project Report

RABRI MAKING UNIT

Prepared by

National Institute of Food Technology

Entrepreneurship and Management(NIFTEM)

Plot No. 97, Sector 56, HSIIDC, Industrial Estate, Kundli,

Sonipat, Haryana 131028

Ministry of Food Processing Industries, Government of India

1. INTRODUCTION

RABRI



Rabri (IAST: Rabaḍī) is a sweet, condensed-milk-based dish, originating from the Indian subcontinent, made by boiling milk on low heat for a long time until it becomes dense and changes its colour to off-white or pale yellow. *Rabri* is made by heating sweetened milk in a large open vessel (*kadhāi*). As the layer of cream begins to form on the surface of the milk, it is taken off and kept aside. *Rabri* is consumed in all parts of India and is consumed by all age groups. Yield of *rabri* depends on total solids of milk, ratio of concentration of milk and amount of sugar added. In general 25-28 per cent yield can be expected from buffalo milk.

2. MARKET POTENTIAL

Rabri and other sweet products made of milk are consumed everywhere in India. The demand of this product is in rural as well as in urban areas. India is known for its festive and religious occasions throughout the year and the demand of milk products is never ending in India's market. The Indian sweet and candy market is currently valued at around \$664 million, with sugar confectionery holding a 70 percent share (\$461 million), and chocolate confectionery accounting for the remainder (\$203 million). The consumption of sweets made up of milk is highest in Uttar Pradesh and Bihar in India & rabri is one of those products.

3. PRODUCT DESCRIPTION

3.1 Raw Material sources

Major raw materials that are mentioned below:

- Milk
- Sugar
- Dry Fruits
- Ghee
- Crushed Paneer
- Packing material

Average raw material (cost per Kg): Rs. 180-200

3.2 Manufacturing process

The process is explained below:

- Raw materials are procured from vendors & are stored in the manufacturing unit.
- Milk is procured and is collected in Milk Collection Tank.
- After this the collected milk is sent for pasteurizing in milk pasteurizer where microorganisms like bacteria are eliminated.
- After this the Pasteurized milk is sent to milk chiller and stored in storage vessel at low temperature.
- The stored milk is then taken out for further process of Rabri and is transferred to Cooking kettle where other materials like sugar, ghee, dry fruits are added and stirred till the final output is achieved.
- It's cooked in 2 stages in 2 different cooking vessels for better control, over concentration & evaporation rate.
- In second cooking kettle various secondary raw materials like dry fruits & crushed paneer are added
- The final product is packed, weighed and sent for sale in the market.




4. PROJECT COMPONENTS






4.1 Land

Land required 1200-1500square feet approx.

Approximate rent for the same is Rs.20000-25000 per month.

4.2 Plant & Machinery

Name	Item Description	Image
Boiler	A boiler is a steam generating device which is used to power various heating equipments and machine within the given plant.	
Milk Storage Tank	Milk storage tank is used to store milk in it and to protect it from dirt and other foreign particles.	
Dairy Freezer	Dairy Freezer is used to maintain the given product at required temperature.	

<p>Milk Reception System</p>	<p>It is a system composed of suction pump, storage tanks, cooling system and vessels to receive milk quickly & efficiently.</p>	
<p>Milk Pasteurizer</p>	<p>To pasteurize milk and eliminates microbes.</p>	
<p>Milk Chiller</p>	<p>It's a device which is used to cool milk to the required temperature by either generating appropriate refrigeration effect or utilizes externally generated refrigeration effect in case of large systems.</p>	
<p>Cooking Kettle with Stirrer</p>	<p>It's a machine which is composed of a simple kettle in which given product is heated either by electrical heaters or heating medium from external source, while the stirrer is provided to ensure uniform heating without burning the product.</p>	
<p>Ribbon Blender</p>	<p>It's a mixer class machine which is designed to mix loose solid material with each other.</p>	

Note: Cost of the machinery is approx. Rs. 15,00,000 excluding GST and other transportation cost.

4.3 Misc. Assets

S.N.	Item Description	Rate
1	Electricity connection	60,000
2	Furniture & Fixtures	60,000
3	Material handling equipments	80,000

4.4 Power Requirement

The borrower shall require power load of 12 KW which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall also purchase DG Set.

4.5 Manpower Requirement

10-11 Manpower are required for Rabri Making unit.

Includes:

3 Skilled Labour

5 Unskilled Labour

2 Sales Personal

1 Accountant

5. FINANCIALS

5.1 Cost of Project

COST OF PROJECT	
	(in Lacs)
PARTICULARS	Amount
Land & Building	Owned/rented
Plant & Machinery	15.00
Miscellaneous Assets	2.00
Working capital	3.33
Total	20.33

5.2 Means of Finance

MEANS OF FINANCE	
PARTICULARS	AMOUNT
Own Contribution (min 10%)	2.03
Subsidy @35%(Max. Rs 10 Lac)	5.95
Term Loan @ 55%	9.35
Working Capital (bank Finance)	3.00
Total	20.33

5.3 Projected Balance Sheet

<u>PROJECTED BALANCE SHEET</u>						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
<u>Liabilities</u>						
Capital						
opening balance		7.74	8.48	9.28	10.42	
Add:- Own Capital	2.03					
Add:- Retained Profit	1.26	2.73	4.81	6.63	8.17	
Less:- Drawings	1.50	2.00	4.00	5.50	7.00	
Subsidy/grant	5.95					
Closing Balance	7.74	8.48	9.28	10.42	11.59	
Term Loan	8.31	6.23	4.16	2.08	-	
Working Capital Limit	3.00	3.00	3.00	3.00	3.00	
Sundry Creditors	1.32	1.49	1.66	1.86	2.06	
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86	
TOTAL :	20.78	19.70	18.70	18.07	17.51	
<u>Assets</u>						
Fixed Assets (Gross)	17.00	17.00	17.00	17.00	17.00	
Gross Dep.	2.45	4.54	6.33	7.86	9.16	
Net Fixed Assets	14.55	12.46	10.67	9.14	7.84	
Current Assets						
Sundry Debtors	3.10	3.54	3.97	4.43	4.92	
Stock in Hand	1.71	1.91	2.11	2.33	2.58	
Cash and Bank	1.42	1.79	1.95	2.16	2.18	
TOTAL :	20.78	19.70	18.70	18.07	17.51	

5.4 Projected Cash Flow

<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	2.03				
Net Profit	1.26	2.73	4.81	7.37	9.61
Depriciation & Exp. W/off	2.45	2.09	1.79	1.53	1.31
Increase in Cash Credit	3.00	-	-	-	-
Increase In Term Loan	9.35	-	-	-	-
Increase in Creditors	1.32	0.17	0.17	0.19	0.20
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	5.95				
TOTAL :	25.77	5.09	6.87	9.21	11.26
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	17.00				
Increase in Stock	1.71	0.20	0.20	0.22	0.24
Increase in Debtors	3.10	0.44	0.43	0.46	0.49
Repayment of Term Loan	1.04	2.08	2.08	2.08	2.08
Drawings	1.50	2.00	4.00	5.50	7.00
Taxation	-	-	-	0.74	1.44
TOTAL :	24.35	4.72	6.71	9.00	11.25

Opening Cash & Bank Balance	-	1.42	1.79	1.95	2.16
Add : Surplus	1.42	0.37	0.16	0.21	0.01
Closing Cash & Bank Balance	1.42	1.79	1.95	2.16	2.18

5.5 Projected Profitability

PROJECTED PROFITABILITY STATEMENT						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
Capacity Utilisation %	70%	75%	80%	85%	90%	
<u>SALES</u>						
Gross Sale						
RABRI	92.93	106.19	119.04	132.98	147.69	
Total	92.93	106.19	119.04	132.98	147.69	
COST OF SALES						
Raw Material Consumed	56.70	63.79	71.28	79.56	88.29	
Electricity Expenses	3.60	4.14	4.76	5.48	6.02	
Depreciation	2.45	2.09	1.79	1.53	1.31	
Wages & labour	12.60	13.23	13.89	14.59	15.75	
Repair & maintenance	3.72	4.25	4.76	4.92	5.17	
Packaging	0.93	1.59	1.79	1.99	2.66	
Cost of Production	80.00	89.09	98.27	108.06	119.20	
Add: Opening Stock /WIP	-	1.33	1.48	1.64	1.80	

Less: Closing Stock /WIP	1.33	1.48	1.64	1.80	1.99
Cost of Sales	78.66	88.94	98.11	107.90	119.01
GROSS PROFIT	14.26	17.26	20.92	25.08	28.67
GROSS PROFIT (%)	15.35%	16.25%	17.58%	18.86%	19.42%
Salary to Staff	7.68	8.83	10.16	11.17	12.29
Interest on Term Loan	0.92	0.81	0.58	0.35	0.12
Interest on working Capital	0.33	0.33	0.33	0.33	0.33
Rent	2.40	2.64	2.90	3.19	3.51
selling & adm exp	1.67	1.91	2.14	2.66	2.81
TOTAL	13.00	14.52	16.11	17.71	19.06
NET PROFIT	1.26	2.73	4.81	7.37	9.61
NET PROFIT(%)	1.36%	2.57%	4.04%	5.54%	6.51%
Taxation		-	-	0.74	1.44
PROFIT (After Tax)	1.26	2.73	4.81	6.63	8.17

5.6 Production and Yield

Production of RABRI		
Production	Capacity	KG
1st year	70%	31,500
2nd year	75%	33,750
3rd year	80%	36,000
4th year	85%	38,250
5th year	90%	40,500

Raw Material Cost			
Year	Capacity Utilisation	Rate (per KG)	Amount (Rs. in lacs)
1st year	70%	180.00	56.70
2nd year	75%	189.00	63.79
3rd year	80%	198.00	71.28
4th year	85%	208.00	79.56
5th year	90%	218.00	88.29

5.7 Sales Revenue

<u>COMPUTATION OF SALE</u>					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	525	563	600	638
Production	31,500	33,750	36,000	38,250	40,500
Less : Closing Stock	525	563	600	638	675
Net Sale	30,975	33,713	35,963	38,213	40,463
sale price per KG	300.00	315.00	331.00	348.00	365.00
Sales (in Lacs)	92.93	106.19	119.04	132.98	147.69

5.8 Working Capital Assessment

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL (in Lacs)					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
	1.33	1.48	1.64	1.80	1.99
<u>Raw Material</u>					
	0.38	0.43	0.48	0.53	0.59
Closing Stock	1.71	1.91	2.11	2.33	2.58

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD (in Lacs)					
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	1.71				
Less : Creditors	1.32				
Paid stock	0.39	10%	0.04	90%	0.35
Sundry Debtors	3.10	10%	0.31	90%	2.79
	3.49		0.35		3.14
MPBF					3.14
WORKING CAPITAL LIMIT DEMAND (from Bank)					3.00
Working Capital Margin					0.33

5.9 Power, Salary & Wages Calculation

Utility Charges (per month)		
Particulars	value	Description
Power connection required	12	KWH
consumption per day	120	units
Consumption per month	3,000	units
Rate per Unit	10	Rs.
power Bill per month	30,000	Rs.

<u>BREAK UP OF LABOUR CHARGES</u>			
Particulars	Wages Rs. per Month	No of Employees	Total Salary
Skilled (in thousand rupees)	15,000	3	45,000
Unskilled (in thousand rupees)	12,000	5	60,000
Total salary per month			1,05,000
Total annual labour charges	(in lacs)	8	12.60

<u>BREAK UP OF Staff Salary CHARGES</u>			
Particulars	Salary Rs. per Month	No of Employees	Total Salary
Sales Personal	20,000	2	40,000
Accountant	24,000	1	24,000
Total salary per month			64,000
Total annual Staff charges	(in lacs)	3	7.68

5.10 Depreciation

COMPUTATION OF DEPRECIATION			(in Lacs)
Description	Plant & Machinery	Miss. Assets	TOTAL
Rate of Depreciation	15.00%	10.00%	
Opening Balance	-	-	-
Addition	15.00	2.00	17.00
Total	15.00	2.00	17.00
Less : Depreciation	2.25	0.20	2.45
WDV at end of Year	12.75	1.80	14.55
Additions During The Year	-	-	-
Total	12.75	1.80	14.55
Less : Depreciation	1.91	0.18	2.09
WDV at end of Year	10.84	1.62	12.46
Additions During The Year	-	-	-
Total	10.84	1.62	12.46
Less : Depreciation	1.63	0.16	1.79
WDV at end of Year	9.21	1.46	10.67
Additions During The Year	-	-	-
Total	9.21	1.46	10.67
Less : Depreciation	1.38	0.15	1.53
WDV at end of Year	7.83	1.31	9.14
Additions During The Year	-	-	-
Total	7.83	1.31	9.14
Less : Depreciation	1.17	0.13	1.31
WDV at end of Year	6.66	1.18	7.84

5.11 Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	9.35	9.35	-	-	9.35
	2nd month	9.35	-	9.35	0.09	-	9.35
	3rd month	9.35	-	9.35	0.09	-	9.35
	4th month	9.35	-	9.35	0.09	-	9.35
	5th month	9.35	-	9.35	0.09	-	9.35
	6th month	9.35	-	9.35	0.09	-	9.35
	7th month	9.35	-	9.35	0.09	0.17	9.18
	8th month	9.18	-	9.18	0.08	0.17	9.00
	9th month	9.00	-	9.00	0.08	0.17	8.83
	10th month	8.83	-	8.83	0.08	0.17	8.66
	11th month	8.66	-	8.66	0.08	0.17	8.48
	12th month	8.48	-	8.48	0.08	0.17	8.31
					0.92	1.04	
2nd	Opening Balance						
	1st month	8.31	-	8.31	0.08	0.17	8.14
	2nd month	8.14	-	8.14	0.07	0.17	7.96
	3rd month	7.96	-	7.96	0.07	0.17	7.79
	4th month	7.79	-	7.79	0.07	0.17	7.62
	5th month	7.62	-	7.62	0.07	0.17	7.45
	6th month	7.45	-	7.45	0.07	0.17	7.27

	7th month	7.27	-	7.27	0.07	0.17	7.10
	8th month	7.10	-	7.10	0.07	0.17	6.93
	9th month	6.93	-	6.93	0.06	0.17	6.75
	10th month	6.75	-	6.75	0.06	0.17	6.58
	11th month	6.58	-	6.58	0.06	0.17	6.41
	12th month	6.41	-	6.41	0.06	0.17	6.23
					0.81	2.08	
3rd	Opening Balance						
	1st month	6.23	-	6.23	0.06	0.17	6.06
	2nd month	6.06	-	6.06	0.06	0.17	5.89
	3rd month	5.89	-	5.89	0.05	0.17	5.71
	4th month	5.71	-	5.71	0.05	0.17	5.54
	5th month	5.54	-	5.54	0.05	0.17	5.37
	6th month	5.37	-	5.37	0.05	0.17	5.19
	7th month	5.19	-	5.19	0.05	0.17	5.02
	8th month	5.02	-	5.02	0.05	0.17	4.85
	9th month	4.85	-	4.85	0.04	0.17	4.68
	10th month	4.68	-	4.68	0.04	0.17	4.50
	11th month	4.50	-	4.50	0.04	0.17	4.33
	12th month	4.33	-	4.33	0.04	0.17	4.16
					0.58	2.08	
4th	Opening Balance						
	1st month	4.16	-	4.16	0.04	0.17	3.98
	2nd month	3.98	-	3.98	0.04	0.17	3.81
	3rd month	3.81	-		0.03	0.17	3.64

				3.81			
4th month	3.64	-	3.64	0.03	0.17	3.46	
5th month	3.46	-	3.46	0.03	0.17	3.29	
6th month	3.29	-	3.29	0.03	0.17	3.12	
7th month	3.12	-	3.12	0.03	0.17	2.94	
8th month	2.94	-	2.94	0.03	0.17	2.77	
9th month	2.77	-	2.77	0.03	0.17	2.60	
10th month	2.60	-	2.60	0.02	0.17	2.42	
11th month	2.42	-	2.42	0.02	0.17	2.25	
12th month	2.25	-	2.25	0.02	0.17	2.08	
				0.35	2.08		
5th	Opening Balance						
1st month	2.08	-	2.08	0.02	0.17	1.90	
2nd month	1.90	-	1.90	0.02	0.17	1.73	
3rd month	1.73	-	1.73	0.02	0.17	1.56	
4th month	1.56	-	1.56	0.01	0.17	1.39	
5th month	1.39	-	1.39	0.01	0.17	1.21	
6th month	1.21	-	1.21	0.01	0.17	1.04	
7th month	1.04	-	1.04	0.01	0.17	0.87	
8th month	0.87	-	0.87	0.01	0.17	0.69	
9th month	0.69	-	0.69	0.01	0.17	0.52	
10th month	0.52	-	0.52	0.00	0.17	0.35	
11th month	0.35	-	0.35	0.00	0.17	0.17	
12th month	0.17	-	0.17	0.00	0.17	-	

			0.12	2.08
DOOR TO DOOR	60	MONTHS		
MORATORIUM PERIOD	6	MONTHS		
REPAYMENT PERIOD	54	MONTHS		

5.12 DSCR

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	3.71	4.82	6.59	8.16	9.48
Interest on Term Loan	0.92	0.81	0.58	0.35	0.12
Total	4.63	5.63	7.18	8.51	9.60
<u>REPAYMENT</u>					
Instalment of Term Loan	1.04	2.08	2.08	2.08	2.08
Interest on Term Loan	0.92	0.81	0.58	0.35	0.12
Total	1.96	2.89	2.66	2.43	2.20
DEBT SERVICE COVERAGE RATIO	2.36	1.95	2.70	3.50	4.36
AVERAGE D.S.C.R.	2.98				

5.13 Break Even Point Analysis

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	92.93	106.19	119.04	132.98	147.69
Less : Op. WIP Goods	-	1.33	1.48	1.64	1.80
Add : Cl. WIP Goods	1.33	1.48	1.64	1.80	1.99
Total Sales	94.26	106.35	119.19	133.14	147.87
Variable & Semi Variable Exp.					
Raw Material Consumed	56.70	63.79	71.28	79.56	88.29
Electricity Exp/Coal Consumption at 60%	2.16	2.48	2.86	3.29	3.61
Wages & Salary at 40%	8.11	8.82	9.62	10.30	11.22
Selling & administrative Expenses 60%	1.00	1.15	1.29	1.60	1.68
Interest on working Capital	0.33	0.33	0.33	0.33	0.33
Repair & maintenance	3.72	4.25	4.76	4.92	5.17
Packaging	0.93	1.59	1.79	1.99	2.66
Total Variable & Semi Variable Exp	72.95	82.41	91.92	101.99	112.96
Contribution	21.31	23.93	27.27	31.15	34.91
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 40%	1.44	1.66	1.90	2.19	2.41
Wages & Salary at 60%	12.17	13.24	14.43	15.46	16.83
Interest on Term Loan	0.92	0.81	0.58	0.35	0.12
Depreciation	2.45	2.09	1.79	1.53	1.31
Selling & administrative Expenses 40%	0.67	0.76	0.86	1.06	1.12
Rent	2.40	2.64	2.90	3.19	3.51
Total Fixed Expenses	20.05	21.20	22.46	23.78	25.30
Capacity Utilization	70%	75%	80%	85%	90%
OPERATING PROFIT	1.26	2.73	4.81	7.37	9.61
BREAK EVEN POINT	66%	66%	66%	65%	65%
BREAK EVEN SALES	88.68	94.20	98.18	101.64	107.16

6. LICENSE & APPROVALS

- Obtain the GST registration.
- Additionally, obtain the Udyog Aadhar registration Number.
- Fire/pollution license as required.
- FSSAI License
- Choice of a Brand Name of the product and secure the name with Trademark if required.

7. ASSUMPTIONS

1. Production Capacity of Rabri is 150 Kgs per day. First year, Capacity has been taken @ 70%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock is for 2 days and finished goods Closing Stock has been taken for 5 days.
4. Credit period to Sundry Debtors has been given for 10 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 12 KW.
10. Selling Prices & Raw material costing has been increased by 5% respectively in the subsequent years.

Limitations of the Model DPR and Guidelines for Entrepreneurs

Limitations of the Model DPR

- i. This model DPR has provided only the basic standard components and methodology to be adopted by an entrepreneur while submitting a proposal under the Formalization of Micro Food Processing Enterprises Scheme of MoFPI.
- ii. This is a model DPR made to provide general methodological structure not for specific entrepreneur/crops/location. Therefore, information on the entrepreneur, forms and structure (proprietorship/partnership/cooperative/ FPC/joint stock company) of his business, details of proposed DPR, project location, raw material base/contract sourcing, entrepreneurs own SWOT analysis, detailed market research, rationale of the project for specific location, community advantage/benefit from the project, employment generation and many more detailed aspects not included.
- iii. The present DPR is based on certain assumptions on cost, prices, interest, capacity utilization, output recovery rate and so on. However, these assumptions in reality may vary across places, markets and situations; thus the resultant calculations will also change accordingly.