

PROJECT REPORT

Of

CURD MANUFACTURING UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Curd Manufacturing Unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]

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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **CURD**
- 6 Name of the project / business activ **CURD MANUFACTURING UNIT**
- 7 Cost of Project : Rs. 10.57 Lakhs
- 8 Means of Finance
- Term Loan Rs. 5.72 Lakhs
- Own Capital Rs. 2.65 Lakhs
- Working Capital Rs. 2.20 Lakhs
- 9 Debt Service Coverage Ratio : 5.51
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6-7 Months
- 12 Break Even Point : 18%
- 13 Employment : 6 Persons
- 14 Power Requirement : 8.00 KW
- 15 Major Raw materials : Milk
- 16 Estimated Annual Sales Turnov : 57.02 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

| Particulars | Amount |
|----------------------|--------------|
| Land | Own/Rented |
| Plant & Machinery | 6.63 |
| Miss Assets | 1.00 |
| Furniture & Fixtures | |
| Working Capital | 2.94 |
| Total | 10.57 |

MEANS OF FINANCE

| Particulars | Amount |
|--------------------------|--------------|
| Own Contribution | 2.65 |
| Working Capital(Finance) | 2.20 |
| Term Loan | 5.72 |
| Total | 10.57 |

INTRODUCTION

CURD



Curd, also known as Dahi, is a well-known milk product which is prepared by the process of fermentation. It is generally consumed on a daily basis, as a part of a meal or refreshment by a large part of the Indian population. It is also suitable for consumption by the lactose intolerant consumers. Curd is a rich source of nutrients such as calcium, phosphorus, vitamin B2, magnesium and beneficial fatty acids which help to strengthen bones and teeth, improve digestion and reduce the risk of heart problems.

1. MARKET POTENTIAL:

The curd market in India is currently being driven by the increasing demand from urban regions.

Curd Market in India: exhibiting a CAGR of 13% during 2010-2017. The healthy growth of the market can be attributed to numerous forces. Population growth, rising disposable incomes, increasing health consciousness among consumers and affordable price are some of the factors that are currently broadening the growth aspects of the market. The market is expected to reach a value of nearly INR 1,809.3 Billion by 2024.

2. PRODUCT DESCRIPTION

2.1 Raw Material

Milk is required as the major raw material for the manufacturing of curd.

Average raw material (cost per Liter): Rs. 40-45

2.2 MANUFACTURING PROCESS

Curd Manufacturing Process

Step1: Procurement

Procurement of raw milk.

Step 2: Milk Reception Area

After procurement step bring the milk to the milk reception & cool the milk, so that life span of the milk can be increased & it can be used for further processing.

Step 3: Pasteurization

After that the main processing of by product starts & put the cooled milk into the inoculation tank and boil the milk at 80oC - 90oC (depends upon the pasteurization). Then again cool it at 4oC.

Pasteurization machines are of two types:

1. Slow online pasteurization
2. Continuous online pasteurization

Step 4: Homogenization

- We used Offline cream separator with pasteurization machine this helps to remove fat from milk and used for the production of the milk.
- Online homogenizer is attached with the pasteurization machine. This breaks the fat part and mixed in the milk.
- It is used for manufacturing of curd.

Step 5: Distribution of pasteurized milk in different tanks

It consists of different tanks which are categorized according to the fat content.

After that milk is transferred into different sections like pouch milk, curd processing, paneer processing.

Curd

Milk is boiled at 92oC and then we thermize it & add culture into that.

Step 6: Packaging

Prepared curd is then transferred into the packaging section

Step 7: Cold room

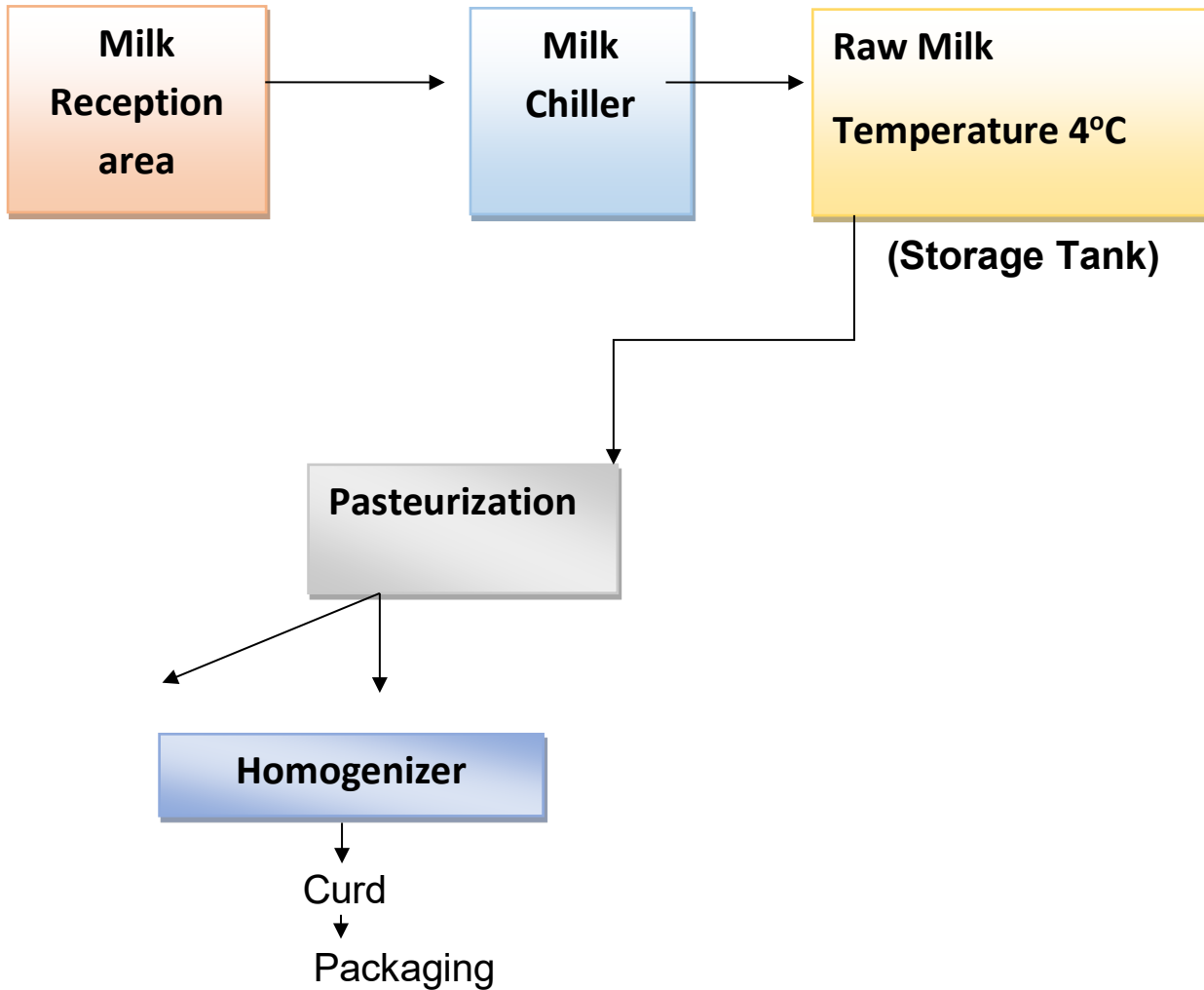
All the product are transferred into cold rooms where the temperature is below 4°C

Step 8: Distribution

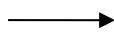
All final products are transferred through transportation into different areas.

Insulation vehicle is required if the final product is transported above 40 – 50 KM.

Curd Processing Technical Flow Chart

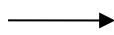


Steam Boiler



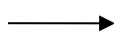
To Boil

Water Chilling Unit



To Cool

Cold Room



To Store By products





3. PROJECT COMPONENTS



3.1 Land

Land required 1200-1500 square feet approx.

Approximate rent for the same is Rs.25000-30000 per month.

3.2 Plant & Machinery

| S. N. | Description | Image |
|-------|--|--|
| 1 | Electrical Heating Tank (Single Jacketed) |  |
| 2 | Homogenizer (double stage) Manual |  |
| 3 | Plate Heat Exchanger (double stage) |  |
| 4 | Culture tank with buff |  |

| | | |
|---|---|--|
| 5 | Curd Incubator |  |
| 6 | Dump Tank |  |
| 7 | S.S. Pump, filter, pipeling, fitting etc. |  |
| 8 | Packaging machine | |

Note: cost of the machinery is approx. Rs. 8,00,000 excluding GST and other transportation cost.

3.3 Misc. Assets

| S.N. | Item Description | Rate |
|-------------|-------------------------|-------------|
| 1 | Electricity connection | 50,000 |
| 2 | Equipment's & fixtures | 50,000 |

3.4 Power Requirement

The borrower shall require power load of 20 HP which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall also purchase DG Set.

3.5 Manpower Requirement

7-8 Manpower are required for the Curd Manufacturing unit.

Includes:

2 Skilled Labour

2 Unskilled Labour

2-3 Helper

1 Accountant

4. FINANCIALS

PROJECT CURD MAKING

| COST OF PROJECT | |
|--------------------------------|---------------|
| | (in Lacs) |
| PARTICULARS | Amount |
| Land & Building | Owned/rented |
| Plant & Machinery | 6.63 |
| Miscellaneous Assets | 1.00 |
| Working capital | 2.94 |
| Total | 10.57 |
| MEANS OF FINANCE | |
| PARTICULARS | AMOUNT |
| Own Contribution@ 25% | 2.65 |
| Term Loan @ 75% | 5.72 |
| Working Capital (bank Finance) | 2.20 |
| Total | 10.57 |

PROJECT CURD MAKING

| PROJECTED BALANCE SHEET | (in Lacs) | | | | |
|--------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| <u>Liabilities</u> | | | | | |
| Capital | | | | | |
| opening balance | | 2.75 | 3.52 | 4.31 | 5.85 |
| Add:- Own Capital | 2.65 | | | | |
| Add:- Retained Profit | 2.10 | 4.77 | 6.79 | 9.55 | 11.45 |
| Less:- Drawings | 2.00 | 4.00 | 6.00 | 8.00 | 10.00 |
| Closing Balance | 2.75 | 3.52 | 4.31 | 5.85 | 7.30 |
| Term Loan | 5.09 | 3.82 | 2.54 | 1.27 | - |
| Working Capital Limit | 2.20 | 2.20 | 2.20 | 2.20 | 2.20 |
| Sundry Creditors | 0.64 | 1.51 | 1.90 | 2.32 | 2.76 |
| Provisions & Other Liab | 0.40 | 0.50 | 0.60 | 0.72 | 0.86 |
| TOTAL : | 11.07 | 11.55 | 11.55 | 12.36 | 13.13 |
| <u>Assets</u> | | | | | |
| Fixed Assets (Gross) | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 |
| Gross Dep. | 1.09 | 2.03 | 2.83 | 3.51 | 4.10 |
| Net Fixed Assets | 6.54 | 5.60 | 4.80 | 4.12 | 3.53 |
| Current Assets | | | | | |
| Sundry Debtors | 2.85 | 3.71 | 4.60 | 5.54 | 6.52 |
| Stock in Hand | 0.73 | 0.94 | 1.17 | 1.41 | 1.66 |
| Cash and Bank | 0.96 | 1.29 | 0.98 | 1.30 | 1.42 |
| TOTAL : | 11.07 | 11.55 | 11.55 | 12.36 | 13.13 |

PROJECT CURD MAKING

| PROJECTED PROFITABILITY STATEMENT | | | | | | (in Lacs) |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year | |
| Capacity Utilisation % | 20% | 25% | 30% | 35% | 40% | |
| <u>SALES</u> | | | | | | |
| Gross Sale | | | | | | |
| CURD | 57.02 | 74.25 | 92.01 | 110.72 | 130.40 | |
| Total | 57.02 | 74.25 | 92.01 | 110.72 | 130.40 | |
| <u>COST OF SALES</u> | | | | | | |
| Raw Material Consumed | 38.40 | 50.40 | 63.36 | 77.28 | 92.16 | |
| Electricity Expenses | 0.72 | 0.83 | 0.95 | 1.10 | 1.20 | |
| Depreciation | 1.09 | 0.94 | 0.80 | 0.68 | 0.58 | |
| Wages & labour | 5.04 | 5.54 | 6.10 | 6.71 | 7.38 | |
| Repair & maintenance | 1.00 | 1.30 | 1.61 | 1.38 | 1.30 | |
| Packaging | 1.14 | 1.49 | 1.84 | 2.21 | 2.35 | |
| Cost of Production | 47.39 | 60.49 | 74.66 | 89.37 | 104.98 | |
| Add: Opening Stock /WIP | - | 0.47 | 0.60 | 0.75 | 0.89 | |
| Less: Closing Stock /WIP | 0.47 | 0.60 | 0.75 | 0.89 | 1.05 | |
| Cost of Sales | 46.92 | 60.36 | 74.52 | 89.22 | 104.82 | |
| GROSS PROFIT | 10.11 | 13.89 | 17.49 | 21.50 | 25.57 | |
| Salary to Staff | 1.92 | 2.11 | 2.32 | 2.56 | 2.81 | |
| Interest on Term Loan | 0.56 | 0.50 | 0.36 | 0.22 | 0.08 | |
| Interest on working Capital | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | |
| Rent | 3.00 | 3.30 | 3.63 | 3.99 | 4.39 | |
| Selling & administrative exp | 2.28 | 2.97 | 3.68 | 4.43 | 5.22 | |
| TOTAL | 8.01 | 9.12 | 10.23 | 11.44 | 12.74 | |
| NET PROFIT | 2.10 | 4.77 | 7.26 | 10.07 | 12.84 | |
| Taxation | | | 0.47 | 0.52 | 1.38 | |
| PROFIT (After Tax) | 2.10 | 4.77 | 6.79 | 9.55 | 11.45 | |

PROJECT CURD MAKING

| PROJECTED CASH FLOW STATEMENT | (in Lacs) | | | | |
|--------------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| <u>SOURCES OF FUND</u> | | | | | |
| Own Margin | 2.65 | | | | |
| Net Profit | 2.10 | 4.77 | 7.26 | 10.07 | 12.84 |
| Depriciation & Exp. W/off | 1.09 | 0.94 | 0.80 | 0.68 | 0.58 |
| Increase in Cash Credit | 2.20 | - | - | - | - |
| Increase In Term Loan | 5.72 | - | - | - | - |
| Increase in Creditors | 0.64 | 0.87 | 0.39 | 0.42 | 0.45 |
| Increase in Provisions & Oth lib | 0.40 | 0.10 | 0.10 | 0.12 | 0.14 |
| Sunsidy/grant | - | | | | |
| TOTAL : | 14.81 | 6.68 | 8.55 | 11.29 | 14.01 |
| <u>APPLICATION OF FUND</u> | | | | | |
| Increase in Fixed Assets | 7.63 | | | | |
| Increase in Stock | 0.73 | 0.21 | 0.23 | 0.24 | 0.26 |
| Increase in Debtors | 2.85 | 0.86 | 0.89 | 0.94 | 0.98 |
| Repayment of Term Loan | 0.64 | 1.27 | 1.27 | 1.27 | 1.27 |
| Drawings | 2.00 | 4.00 | 6.00 | 8.00 | 10.00 |
| Taxation | - | - | 0.47 | 0.52 | 1.38 |
| TOTAL : | 13.85 | 6.34 | 8.86 | 10.97 | 13.90 |
| Opening Cash & Bank Balance | - | 0.96 | 1.29 | 0.98 | 1.30 |
| Add : Surplus | 0.96 | 0.33 | -0.31 | 0.32 | 0.12 |
| Closing Cash & Bank Balance | 0.96 | 1.29 | 0.98 | 1.30 | 1.42 |

PROJECT CURD MAKING

| CALCULATION OF D.S.C.R | | | | | |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| | | | | | |
| CASH ACCRUALS | 3.19 | 5.71 | 7.59 | 10.23 | 12.04 |
| Interest on Term Loan | 0.56 | 0.50 | 0.36 | 0.22 | 0.08 |
| Total | 3.76 | 6.20 | 7.94 | 10.45 | 12.11 |
| | | | | | |
| REPAYMENT | | | | | |
| Instalment of Term Loan | 0.64 | 1.27 | 1.27 | 1.27 | 1.27 |
| Interest on Term Loan | 0.56 | 0.50 | 0.36 | 0.22 | 0.08 |
| | | | | | |
| Total | 1.20 | 1.77 | 1.63 | 1.49 | 1.35 |
| | | | | | |
| DEBT SERVICE COVERAGE RATIO | 3.13 | 3.51 | 4.88 | 7.02 | 8.99 |
| AVERAGE D.S.C.R. | | | | | 5.51 |

PROJECT CURD MAKING

| COMPUTATION OF CLOSING STOCK & WORKING CAPITAL | | | | | (in Lacs) |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Finished Goods | | | | | |
| | 0.47 | 0.60 | 0.75 | 0.89 | 1.05 |
| Raw Material | | | | | |
| | 0.26 | 0.34 | 0.42 | 0.52 | 0.61 |
| Closing Stock | 0.73 | 0.94 | 1.17 | 1.41 | 1.66 |

| COMPUTATION OF WORKING CAPITAL REQUIREMENT | | | | | |
|---|---------------|-------------------|-------------|---------------------|-------------|
| TRADITIONAL METHOD | | | | | (in Lacs) |
| Particulars | Amount | Own Margin | | Bank Finance | |
| Finished Goods & Raw M | 0.73 | | | | |
| Less : Creditors | 0.64 | | | | |
| Paid stock | 0.09 | 25% | 0.02 | 90% | 0.07 |
| Sundry Debtors | 2.85 | 25% | 0.71 | 90% | 2.14 |
| | 2.94 | | 0.74 | | 2.21 |
| MPBF | | | | | 2.21 |
| WORKING CAPITAL LIMIT DEMAND (from Bank) | | | | | 2.20 |
| Working Capital Margin | | | | | 0.74 |

PROJECT CURD MAKING

| REPAYMENT SCHEDULE OF TERM LOAN | | | | | | | |
|--|-----------------|--------|----------|-------|-------------|-------------|-----------------|
| | | | | | | Interest | 11.00% |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Closing Balance |
| 1st | Opening Balance | | | | | | |
| | 1st month | - | 5.72 | 5.72 | - | - | 5.72 |
| | 2nd month | 5.72 | - | 5.72 | 0.05 | - | 5.72 |
| | 3rd month | 5.72 | - | 5.72 | 0.05 | - | 5.72 |
| | 4th month | 5.72 | - | 5.72 | 0.05 | - | 5.72 |
| | 5th month | 5.72 | - | 5.72 | 0.05 | - | 5.72 |
| | 6th month | 5.72 | - | 5.72 | 0.05 | - | 5.72 |
| | 7th month | 5.72 | - | 5.72 | 0.05 | 0.11 | 5.62 |
| | 8th month | 5.62 | - | 5.62 | 0.05 | 0.11 | 5.51 |
| | 9th month | 5.51 | - | 5.51 | 0.05 | 0.11 | 5.40 |
| | 10th month | 5.40 | - | 5.40 | 0.05 | 0.11 | 5.30 |
| | 11th month | 5.30 | - | 5.30 | 0.05 | 0.11 | 5.19 |
| | 12th month | 5.19 | - | 5.19 | 0.05 | 0.11 | 5.09 |
| | | | | | 0.56 | 0.64 | |
| 2nd | Opening Balance | | | | | | |
| | 1st month | 5.09 | - | 5.09 | 0.05 | 0.11 | 4.98 |
| | 2nd month | 4.98 | - | 4.98 | 0.05 | 0.11 | 4.87 |
| | 3rd month | 4.87 | - | 4.87 | 0.04 | 0.11 | 4.77 |
| | 4th month | 4.77 | - | 4.77 | 0.04 | 0.11 | 4.66 |
| | 5th month | 4.66 | - | 4.66 | 0.04 | 0.11 | 4.56 |
| | 6th month | 4.56 | - | 4.56 | 0.04 | 0.11 | 4.45 |
| | 7th month | 4.45 | - | 4.45 | 0.04 | 0.11 | 4.34 |
| | 8th month | 4.34 | - | 4.34 | 0.04 | 0.11 | 4.24 |
| | 9th month | 4.24 | - | 4.24 | 0.04 | 0.11 | 4.13 |
| | 10th month | 4.13 | - | 4.13 | 0.04 | 0.11 | 4.03 |
| | 11th month | 4.03 | - | 4.03 | 0.04 | 0.11 | 3.92 |
| | 12th month | 3.92 | - | 3.92 | 0.04 | 0.11 | 3.82 |
| | | | | | 0.50 | 1.27 | |
| 3rd | Opening Balance | | | | | | |
| | 1st month | 3.82 | - | 3.82 | 0.03 | 0.11 | 3.71 |
| | 2nd month | 3.71 | - | 3.71 | 0.03 | 0.11 | 3.60 |
| | 3rd month | 3.60 | - | 3.60 | 0.03 | 0.11 | 3.50 |
| | 4th month | 3.50 | - | 3.50 | 0.03 | 0.11 | 3.39 |
| | 5th month | 3.39 | - | 3.39 | 0.03 | 0.11 | 3.29 |
| | 6th month | 3.29 | - | 3.29 | 0.03 | 0.11 | 3.18 |
| | 7th month | 3.18 | - | 3.18 | 0.03 | 0.11 | 3.07 |
| | 8th month | 3.07 | - | 3.07 | 0.03 | 0.11 | 2.97 |
| | 9th month | 2.97 | - | 2.97 | 0.03 | 0.11 | 2.86 |
| | 10th month | 2.86 | - | 2.86 | 0.03 | 0.11 | 2.76 |
| | 11th month | 2.76 | - | 2.76 | 0.03 | 0.11 | 2.65 |
| | 12th month | 2.65 | - | 2.65 | 0.02 | 0.11 | 2.54 |
| | | | | | 0.36 | 1.27 | |
| 4th | Opening Balance | | | | | | |
| | 1st month | 2.54 | - | 2.54 | 0.02 | 0.11 | 2.44 |

PROJECT CURD MAKING

| | | | | | | |
|----------------------------|------|--------|------|-------------|-------------|------|
| 2nd month | 2.44 | - | 2.44 | 0.02 | 0.11 | 2.33 |
| 3rd month | 2.33 | - | 2.33 | 0.02 | 0.11 | 2.23 |
| 4th month | 2.23 | - | 2.23 | 0.02 | 0.11 | 2.12 |
| 5th month | 2.12 | - | 2.12 | 0.02 | 0.11 | 2.01 |
| 6th month | 2.01 | - | 2.01 | 0.02 | 0.11 | 1.91 |
| 7th month | 1.91 | - | 1.91 | 0.02 | 0.11 | 1.80 |
| 8th month | 1.80 | - | 1.80 | 0.02 | 0.11 | 1.70 |
| 9th month | 1.70 | - | 1.70 | 0.02 | 0.11 | 1.59 |
| 10th month | 1.59 | - | 1.59 | 0.01 | 0.11 | 1.48 |
| 11th month | 1.48 | - | 1.48 | 0.01 | 0.11 | 1.38 |
| 12th month | 1.38 | - | 1.38 | 0.01 | 0.11 | 1.27 |
| | | | | 0.22 | 1.27 | |
| 5th Opening Balance | | | | | | |
| 1st month | 1.27 | - | 1.27 | 0.01 | 0.11 | 1.17 |
| 2nd month | 1.17 | - | 1.17 | 0.01 | 0.11 | 1.06 |
| 3rd month | 1.06 | - | 1.06 | 0.01 | 0.11 | 0.95 |
| 4th month | 0.95 | - | 0.95 | 0.01 | 0.11 | 0.85 |
| 5th month | 0.85 | - | 0.85 | 0.01 | 0.11 | 0.74 |
| 6th month | 0.74 | - | 0.74 | 0.01 | 0.11 | 0.64 |
| 7th month | 0.64 | - | 0.64 | 0.01 | 0.11 | 0.53 |
| 8th month | 0.53 | - | 0.53 | 0.00 | 0.11 | 0.42 |
| 9th month | 0.42 | - | 0.42 | 0.00 | 0.11 | 0.32 |
| 10th month | 0.32 | - | 0.32 | 0.00 | 0.11 | 0.21 |
| 11th month | 0.21 | - | 0.21 | 0.00 | 0.11 | 0.11 |
| 12th month | 0.11 | - | 0.11 | 0.00 | 0.11 | - |
| | | | | 0.08 | 1.27 | |
| DOOR TO DOOR | 60 | MONTHS | | | | |
| MORATORIUM PERIOD | 6 | MONTHS | | | | |
| REPAYMENT PERIOD | 54 | MONTHS | | | | |

Assumptions:

1. Production Capacity of a Curd unit is taken at 50 Kg per Hour. First year, Capacity has been taken @ 20%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 2- 3 days.
4. Credit period to Sundry Debtors has been given for 5 days.
5. Credit period by the Sundry Creditors has been provided for 10 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 8 KW.
10. Selling Prices & Raw material costing has been increased by 5% & 5% respectively in the subsequent years.

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