

Model Detailed Project Report

DAL MILL (GRAM BASED PRODUCT)

Prepared by

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1. INTRODUCTION



Pulses refer to the dried, edible seeds of leguminous crops. Pulses play a fundamental role as a low-fat source of protein and an essential component of traditional food baskets. These are most essential element for a well-balanced diet and major source of protein to vegetarian people of India. There are several varieties of pulses in India. Most of them are produced and consumed locally. Chickpeas (Chana), pigeon peas (Arhar / Toor Dal), Urad (Urad Dal), Mung (Moong) and red lentils (Masoor) are the top five pulses grown in India. These pulses account for over 80 per cent of the total production in the country. The conversion of pulses seed into Dal is done through the process of milling. A Dal mill should be located in rural or semi-urban area which have excess production of pulses and connected to market. The project deals with variety of dal such as Masoor Dal, Chana Dal, Urad Dal, etc.

2. MARKET POTENTIAL:

Pulses are generally used along with rice and Chapatti as Dal. Dal, garnished with onions, tomatoes and spices is an indispensable nibble in household. The various pulses are part of the normal diet of all vegetarians and are also used frequently by non-vegetarians too. They are the main sources of protein. The pulses are used for preparing hot dishes, sweet dishes and other varieties. Pulses are the most common diet part of Indian families. Dal is dry cereal, which is taken to fulfill the requirements of protein for a normal human being. Due to the high content of proteins pulses are mixed in other cereal foods to increase the quality of proteins to be injected in the body.

India pulses market reached a volume of 27.5 Million Tons in 2019. The market for pulses/Dal is present largely in India where ninety per cent of the produce is consumed locally. Pulses are now increasingly being used in the processing of ready-to-eat (RTE) food products. As a result of rapid urbanization, changing lifestyle and hectic work schedules, healthy snack foods are becoming popular amongst the working population. The demand for pulses will never end but will increase in an increasing rate and rise in population also drives the demand for pulses.

3. PRODUCT DESCRIPTION

3.1 PRODUCT BENEFITS

- Provides energy
- Excellent source of vegetarian protein
- Keeps your heart healthy
- Diabetic friendly
- Improves Insulin Response
- Lowers Blood Pressure
- High Fiber
- Weight loss

3.2 RAW MATERIAL

Basic raw material that is used in Dal mill is chick peas that are directly procured from farmers and packing material used to pack finished product.

3.3 MANUFACTURING PROCESS

The raw material i.e. some pea depending on type of dal like chick pea in case of chana dal, are procured from vendor or farmers and are stored in raw material warehouse as per production requirements.

The appropriate type of pea is taken from warehouse into the milling plant as per type of dal to be produced. These peas are then fed to a soaking tank filled with water, where the peas are allowed to soak in water for good period of time usually close to 24hrs for many dals.

After appropriate soaking a bucket elevator carries these peas from soaking tank to air dryers equipped with blowers or to terrace for sun drying, where worker spread peas appropriately in case of latter arrangement.

The dried peas are fed to a Reel Machine with appropriate grit size which basically perform the function of removing major foreign particles like other peas, sticks, leaves etc.

These peas are then fed to emery roll dehusker which simply removes the husk or skin of the peas, thus generating whole dal. This whole dal is feed to another reel machine with finer grit size to remove the husk and other smaller impurities.

This whole dal is now fed to lentil splitting machine, which simply shear opens the whole dal into two halves thus the dal is obtained, this dal is now fed to dal polisher which simply polishes the dal and improves its appearance followed by which these dals are collected in bins, from where they are packed in sacks and sent for sale.




Note: All dal with similar sized peas can be processed in same unit as long as machine can accommodate range of variation.





4. PROJECT COMPONENTS


4.1 Land & Building

The approximate total area required for complete small-scale factory setup is 1200-1500 Sq. ft. approximately smooth production

4.2 Plant & Machinery

| | | |
|------------------------------------|---|---|
| <p>Bucket Elevator</p> | <p>A bucket elevator, also called a grain leg, is a mechanism for hauling flowable bulk materials vertically. It consists of: Buckets to contain the material</p> |  |
| <p>Reel machine</p> | <p>Reel Machine is used to separate out impurities from the grains which are bigger or smaller than mainstream material size. Reel cleaning machinery is very versatile and it is used in several applications.</p> |  <p style="text-align: right;">Reel Machine</p> |
| <p>Conveyor</p> | <p>Conveyor Systems are mechanical devices or assemblies that transport material with minimal effort. While there are many different kinds of conveyor systems, they usually consist of a frame that supports either rollers, wheels, or a belt, upon which materials move from one place to another.</p> |  |
| <p>Emery roll De husker</p> | <p>Emery Roller is a machine for de-husking pulses thus this machine some time called as pulses Splitter. They are used in various pulses mills.</p> |  |

| | | |
|---|---|---|
| <p>Dal Polisher</p> | <p>Polishing is done to increase consumers appeal and is a form of value addition, though not desirable. Dal is polished in different ways, such as nylon polish, oil/water polish, leather and makhmal polish. Generally polishing is done using soap stone, oil or water. Polishing gives uniform look and shine to each grain.</p> |  |
| <p>Lentil Splitting Machine (Chakki 18")</p> | |  |
| <p>D- Stoner</p> | <p>The main function of these machines to removes stones, dust and heavy impurities from grains.</p> |  |
| <p>Storage Tank</p> | <p>Storage tanks serve two major purposes. One is to provide storage volume and the other is to provide pressure to the distribution system. A particular tank can serve one or both purposes depending on its location within the system and its type of configuration. There are a variety of tank types or configurations.</p> |  |

| | | |
|--------------------------|---|---|
| Soaking Container | These are used for soaking the product and the raw material stored in the unit. |  |
|--------------------------|---|---|

Note: Approx. Total Machinery cost shall be Rs 10.36 lakhs excluding GST and Transportation Cost.

4.3 Power Requirement

The borrower shall require power load of 6 KW which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall purchase DG Set.

4.4 Manpower Requirement

8 Manpower are required for the Gram Based Dal Mill

Includes:

1 Plant Operator

2 Skilled Labour

2 Unskilled Labour

2 Administrative Staffs

1 Accountant

5. FINANCIALS

5.1 Cost of Project

| PARTICULARS | AMOUNT | Own Contribution | Bank Finance |
|---------------------------------------|--------------|-------------------------|--------------|
| Land & Building | | 25.00% Owned /rented | 75.00% |
| Plant & Machinery | 10.36 | 2.59 | 7.77 |
| Furniture & Fixtures and Other Assets | 1.00 | 0.25 | 0.75 |
| Working capital | 6.67 | 1.67 | 5.00 |
| Total | 18.03 | 4.51 | 13.52 |

5.2 Means of Finance

| PARTICULARS | AMOUNT |
|-----------------------|--------------|
| Own Contribution | 4.51 |
| Bank Loan | 8.52 |
| Working capital Limit | 5.00 |
| Total | 18.03 |

5.3 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 | | 4.90 | 5.98 | 7.58 | 9.49 | |
| Add:- Own Capital | 4.51 | | | | | |
| Add:- Retained Profit | 1.65 | 3.27 | 4.85 | 6.41 | 8.00 | |
| Less:- Drawings | 1.25 | 2.20 | 3.25 | 4.50 | 5.50 | |
| Closing Blance | 4.90 | 5.98 | 7.58 | 9.49 | 11.99 | |
| Term Loan | 7.57 | 5.68 | 3.79 | 1.89 | - | |
| Working Capital Limit | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | |
| Sundry Creditors | 0.54 | 0.61 | 0.69 | 0.78 | 0.87 | |
| TOTAL : | 18.01 | 17.27 | 17.05 | 17.16 | 17.86 | |
| <u>Assets</u> | | | | | | |
| Fixed Assets (Gross) | 11.36 | 11.36 | 11.36 | 11.36 | 11.36 | |
| Gross Dep. | 1.65 | 3.06 | 4.27 | 5.30 | 6.17 | |
| Net Fixed Assets | 9.71 | 8.30 | 7.09 | 6.06 | 5.19 | |
| Current Assets | | | | | | |
| Sundry Debtors | 3.97 | 4.73 | 5.35 | 6.02 | 6.75 | |
| Stock in Hand | 3.23 | 3.64 | 4.08 | 4.56 | 5.09 | |
| Cash and Bank | 1.11 | 0.60 | 0.53 | 0.51 | 0.84 | |
| TOTAL : | 18.01 | 17.27 | 17.05 | 17.16 | 17.86 | |

5.4 Projected Cash Flow

| PROJECTED CASH FLOW STATEMENT | | | | | (in Lacs) |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|------------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| <u>SOURCES OF FUND</u> | | | | | |
| Own Margin | 4.51 | | | | |
| Net Profit | 1.65 | 3.27 | 4.85 | 6.48 | 8.16 |
| Depreciation & Exp. W/off | 1.65 | 1.41 | 1.20 | 1.03 | 0.88 |
| Increase in Cash Credit | 5.00 | - | - | - | - |
| Increase In Term Loan | 8.52 | - | - | - | - |
| Increase in Creditors | 0.54 | 0.07 | 0.08 | 0.09 | 0.09 |
| TOTAL : | 21.87 | 4.76 | 6.13 | 7.60 | 9.13 |
| <u>APPLICATION OF FUND</u> | | | | | |
| Increase in Fixed Assets | 11.36 | | | | |
| Increase in Stock | 3.23 | 0.40 | 0.44 | 0.48 | 0.53 |
| Increase in Debtors | 3.97 | 0.76 | 0.62 | 0.67 | 0.72 |
| Repayment of Term Loan | 0.95 | 1.89 | 1.89 | 1.89 | 1.89 |
| Drawings | 1.25 | 2.20 | 3.25 | 4.50 | 5.50 |
| Taxation | - | - | - | 0.07 | 0.16 |
| TOTAL : | 20.76 | 5.26 | 6.21 | 7.62 | 8.80 |
| Opening Cash & Bank Balance | - | 1.11 | 0.60 | 0.53 | 0.51 |
| Add: Surplus | 1.11 | (0.50) | (0.07) | (0.02) | 0.33 |
| Closing Cash & Bank Balance | 1.11 | 0.60 | 0.53 | 0.51 | 0.84 |

5.5 Projected Profitability

| <u>PROJECTED PROFITABILITY STATEMENT</u> | | | | | (in Lacs) |
|---|-----------------|-----------------|-----------------|-----------------|------------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Capacity Utilisation % | 60% | 65% | 70% | 75% | 80% |
| <u>SALES</u> | | | | | |
| Gross Sale | | | | | |
| Chana Dal (Gram Based Product) | 39.67 | 47.32 | 53.53 | 60.23 | 67.48 |
| Total | 39.67 | 47.32 | 53.53 | 60.23 | 67.48 |
| <u>COST OF SALES</u> | | | | | |
| Raw Material Consumed | 23.04 | 26.21 | 29.64 | 33.34 | 37.33 |
| Electricity Expenses | 0.86 | 0.95 | 1.05 | 1.15 | 1.26 |
| Depreciation | 1.65 | 1.41 | 1.20 | 1.03 | 0.88 |
| Wages & labour | 5.70 | 6.27 | 6.90 | 7.59 | 8.35 |
| Repair & maintenance | 0.79 | 1.18 | 1.34 | 1.51 | 1.69 |
| Cost of Production | 32.05 | 36.02 | 40.12 | 44.61 | 49.51 |
| Add: Opening Stock /WIP | - | 1.60 | 1.80 | 2.01 | 2.23 |
| Less: Closing Stock /WIP | 1.60 | 1.80 | 2.01 | 2.23 | 2.48 |
| Cost of Sales | 30.45 | 35.82 | 39.91 | 44.38 | 49.26 |
| GROSS PROFIT | 9.22 | 11.50 | 13.61 | 15.85 | 18.21 |
| | 23.25% | 24.29% | 25.43% | 26.32% | 26.99% |
| Salary to Staff | 3.00 | 3.30 | 3.63 | 3.99 | 4.39 |
| Interest on Term Loan | 0.84 | 0.74 | 0.53 | 0.32 | 0.11 |

| | | | | | |
|-----------------------------|--------------|--------------|--------------|---------------|---------------|
| Interest on working Capital | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Rent | 1.80 | 1.98 | 2.18 | 2.40 | 2.64 |
| Selling & adm exp | 1.39 | 1.66 | 1.87 | 2.11 | 2.36 |
| TOTAL | 7.58 | 8.22 | 8.76 | 9.37 | 10.05 |
| NET PROFIT | 1.65 | 3.27 | 4.85 | 6.48 | 8.16 |
| | 4.15% | 6.91% | 9.06% | 10.76% | 12.10% |
| Taxation | - | - | - | 0.07 | 0.16 |
| PROFIT (After Tax) | 1.65 | 3.27 | 4.85 | 6.41 | 8.00 |

5.6 Production and Yield

| COMPUTATION OF PRODUCTION OF CHANA DAL (GRAM BASED PRODUCT) | | |
|--|---------|--------------|
| Items to be Manufactured | | |
| Chana Dal (Gram Based Product) | | |
| Machine Production capacity per Hour | 50.00 | kg |
| Working hours in a day | 8 | |
| Production Per Day | 400.00 | kg |
| No of Working Days in Month | 25 | |
| No of Working Days in a Year | 300 | |
| Machine capacity per annum | 120,000 | kg |
| Production per annum | 120,000 | pack of 1 kg |

| Production of Chana Dal (Gram Based Product) | | |
|---|-----------------|---------------------|
| Production | Capacity | pack of 1 kg |
| 1st year | 60% | 72,000.00 |
| 2nd year | 65% | 78,000.00 |
| 3rd year | 70% | 84,000.00 |
| 4th year | 75% | 90,000.00 |
| 5th year | 80% | 96,000.00 |

| Raw Material Cost | | | |
|--------------------------|-----------------------------|------------------------|-----------------------------|
| Year | Capacity Utilization | Rate (per pack) | Amount (Rs. in lacs) |
| 1st year | 60% | 32.00 | 23.04 |
| 2nd year | 65% | 33.60 | 26.21 |
| 3rd year | 70% | 35.28 | 29.64 |
| 4th year | 75% | 37.04 | 33.34 |
| 5th year | 80% | 38.89 | 37.33 |

5.7 Sales Revenue

| <u>COMPUTATION OF SALE</u> | | | | | |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|
| Particulars | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Op Stock | - | 3,600.00 | 3,900.00 | 4,200.00 | 4,500.00 |
| Production | 72,000.00 | 78,000.00 | 84,000.00 | 90,000.00 | 96,000.00 |
| Less : Closing Stock | 3,600.00 | 3,900.00 | 4,200.00 | 4,500.00 | 4,800.00 |
| Net Sale | 68,400.00 | 77,700.00 | 83,700.00 | 89,700.00 | 95,700.00 |
| Avg sale price per pack | 58.00 | 60.90 | 63.95 | 67.15 | 70.51 |
| Sales (in Lacs) | 39.67 | 47.32 | 53.53 | 60.23 | 67.48 |

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> | | | | | |
| | 1.60 | 1.80 | 2.01 | 2.23 | 2.48 |
| <u>Raw Material</u> | | | | | |
| | 1.63 | 1.83 | 2.07 | 2.33 | 2.61 |
| Closing Stock | 3.23 | 3.64 | 4.08 | 4.56 | 5.09 |

| COMPUTATION OF WORKING CAPITAL REQUIREMENT | | | | |
|---|---------------|-------------------|-------------|------------------------|
| TRADITIONAL METHOD | | | | (in Lacs) |
| Particulars | Amount | Own Margin | | Bank Finance |
| Finished Goods & Raw Material | 3.23 | | | |
| Less : Creditors | 0.54 | | | |
| Paid stock | 2.69 | 25% | 0.67 | 75% 2.02 |
| Sundry Debtors | 3.97 | 25% | 0.99 | 75% 2.98 |
| | 6.66 | | 1.67 | 5.00 |
| WORKING CAPITAL LIMIT DEMAND (from Bank) | | | | 5.00 |

5.9 Power, Salary & Wages Calculation

| Utility Charges (per month) | | |
|------------------------------------|--------------|--------------------|
| Particulars | value | Description |
| Power connection required | 6 | KWH |
| consumption per day | 48 | units |
| Consumption per month | 1,200 | units |
| Rate per Unit | 10 | Rs. |
| power Bill per month | 12,000 | Rs. |

| <u>BREAK UP OF LABOUR CHARGES</u> | | | |
|--|------------------------------------|----------------------------|-------------------------|
| Particulars | Wages Rs. per Month | No of Employees | Total Salary |
| Plant operator | 12,500 | 1 | 12,500 |
| Skilled (in thousand rupees) | 10,000 | 2 | 20,000 |
| Unskilled (in thousand rupees) | 7,500 | 2 | 15,000 |
| Total salary per month | | | 47,500 |
| Total annual labour charges | (in lacs) | | 5.70 |

| <u>BREAK UP OF STAFF SALARY</u> | | | |
|--|-------------------------------------|----------------------------|-------------------------|
| Particulars | Salary Rs. per Month | No of Employees | Total Salary |
| Accountant | 10,000 | 1 | 10,000 |
| Administrative Staffs | 7,500 | 2 | 15,000 |
| Total salary per month | | | 25,000 |
| Total annual Staff charges | (in lacs) | | 3.00 |

5.10 Financial Ratio Analysis

| FINANCIAL INDICATORS | | | | | |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| TURNOVER | 39.67 | 47.32 | 53.53 | 60.23 | 67.48 |
| GROSS PROFIT | 9.22 | 11.50 | 13.61 | 15.85 | 18.21 |
| G.P. RATIO | 23.25% | 24.29% | 25.43% | 26.32% | 26.99% |
| NET PROFIT | 1.65 | 3.27 | 4.85 | 6.48 | 8.16 |
| N.P. RATIO | 4.15% | 6.91% | 9.06% | 10.76% | 12.10% |
| CURRENT ASSETS | 8.31 | 8.97 | 9.96 | 11.09 | 12.67 |
| CURRENT LIABILITIES | 5.54 | 5.61 | 5.69 | 5.78 | 5.87 |
| CURRENT RATIO | 1.50 | 1.60 | 1.75 | 1.92 | 2.16 |
| TERM LOAN | 7.57 | 5.68 | 3.79 | 1.89 | - |
| TOTAL NET WORTH | 4.90 | 5.98 | 7.58 | 9.49 | 11.99 |
| DEBT/EQUITY | 1.54 | 0.95 | 0.50 | 0.20 | - |
| TOTAL NET WORTH | 4.90 | 5.98 | 7.58 | 9.49 | 11.99 |
| TOTAL OUTSIDE LIABILITIES | 13.11 | 11.29 | 9.48 | 7.67 | 5.87 |
| TOL/TNW | 2.67 | 1.89 | 1.25 | 0.81 | 0.49 |
| PBDIT | 4.69 | 5.97 | 7.13 | 8.38 | 9.70 |
| INTEREST | 1.39 | 1.29 | 1.08 | 0.87 | 0.66 |

| INTEREST COVERAGE RATIO | 3.38 | 4.64 | 6.61 | 9.62 | 14.64 |
|--------------------------------|-------------|-------------|-------------|-------------|--------------|
| WDV | 9.71 | 8.30 | 7.09 | 6.06 | 5.19 |
| TERM LOAN | 7.57 | 5.68 | 3.79 | 1.89 | - |
| FACR | 1.28 | 1.46 | 1.87 | 3.20 | - |

5.11 DSCR

| <u>CALCULATION OF D.S.C.R</u> | | | | | |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| CASH ACCRUALS | 3.30 | 4.68 | 6.05 | 7.44 | 8.88 |
| Interest on Term Loan | 0.84 | 0.74 | 0.53 | 0.32 | 0.11 |
| Total | 4.14 | 5.42 | 6.58 | 7.76 | 8.99 |
| <u>REPAYMENT</u> | | | | | |
| Instalment of Term Loan | 0.95 | 1.89 | 1.89 | 1.89 | 1.89 |
| Interest on Term Loan | 0.84 | 0.74 | 0.53 | 0.32 | 0.11 |
| Total | 1.78 | 2.63 | 2.42 | 2.21 | 2.01 |
| DEBT SERVICE COVERAGE RATIO | 2.32 | 2.06 | 2.72 | 3.50 | 4.48 |
| AVERAGE D.S.C.R. | 2.97 | | | | |

5.12 Depreciation

COMPUTATION OF DEPRECIATION

(in Lacs)

| Description | Plant & Machinery | Furniture | TOTAL |
|---------------------------|------------------------------|------------------|--------------|
| Rate of Depreciation | 15.00% | 10.00% | |
| Opening Balance | - | - | - |
| Addition | 10.36 | 1.00 | 11.36 |
| Total | 10.36 | 1.00 | 11.36 |
| Less : Depreciation | 1.55 | 0.10 | 1.65 |
| WDV at end of Year | 8.81 | 0.90 | 9.71 |
| Additions During The Year | - | - | - |
| Total | 8.81 | 0.90 | 9.71 |
| Less : Depreciation | 1.32 | 0.09 | 1.41 |
| WDV at end of Year | 7.49 | 0.81 | 8.30 |
| Additions During The Year | - | - | - |
| Total | 7.49 | 0.81 | 8.30 |
| Less : Depreciation | 1.12 | 0.08 | 1.20 |
| WDV at end of Year | 6.36 | 0.73 | 7.09 |
| Additions During The Year | - | - | - |
| Total | 6.36 | 0.73 | 7.09 |
| Less : Depreciation | 0.95 | 0.07 | 1.03 |
| WDV at end of Year | 5.41 | 0.66 | 6.06 |
| Additions During The Year | - | - | - |
| Total | 5.41 | 0.66 | 6.06 |
| Less : Depreciation | 0.81 | 0.07 | 0.88 |
| WDV at end of Year | 4.60 | 0.59 | 5.19 |
| Additions During The Year | - | - | - |

| | | | |
|---------------------------|-------------|-------------|-------------|
| Total | 4.60 | 0.59 | 5.19 |
| Less : Depreciation | 0.69 | 0.06 | 0.75 |
| WDV at end of Year | 3.91 | 0.53 | 4.44 |
| Less : Depreciation | 0.59 | 0.05 | 0.64 |
| WDV at end of Year | 3.32 | 0.48 | 3.80 |
| Less : Depreciation | 0.50 | 0.05 | 0.55 |
| WDV at end of Year | 2.82 | 0.43 | 3.25 |

5.13 Repayment schedule

| REPAYMENT SCHEDULE OF TERM LOAN | | | | | | | |
|---------------------------------|-----------------|--------|----------|-------|----------|-----------|-----------------|
| | | | | | Interest | | 11.00% |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Closing Balance |
| ist | Opening Balance | | | | | | |
| | 1st month | - | 8.52 | 8.52 | - | - | 8.52 |
| | 2nd month | 8.52 | - | 8.52 | 0.08 | - | 8.52 |
| | 3rd month | 8.52 | - | 8.52 | 0.08 | - | 8.52 |
| | 4th month | 8.52 | - | 8.52 | 0.08 | | 8.52 |
| | 5th month | 8.52 | - | 8.52 | 0.08 | | 8.52 |
| | 6th month | 8.52 | - | 8.52 | 0.08 | | 8.52 |
| | 7th month | 8.52 | - | 8.52 | 0.08 | 0.16 | 8.36 |
| | 8th month | 8.36 | - | 8.36 | 0.08 | 0.16 | 8.20 |
| | 9th month | 8.20 | - | 8.20 | 0.08 | 0.16 | 8.05 |
| | 10th month | 8.05 | - | 8.05 | 0.07 | 0.16 | 7.89 |

| | | | | | | | |
|------------|-----------------|------|---|------|-------------|-------------|------|
| | 11th month | 7.89 | - | 7.89 | 0.07 | 0.16 | 7.73 |
| | 12th month | 7.73 | - | 7.73 | 0.07 | 0.16 | 7.57 |
| | | | | | 0.84 | 0.95 | |
| 2nd | Opening Balance | | | | | | |
| | 1st month | 7.57 | - | 7.57 | 0.07 | 0.16 | 7.42 |
| | 2nd month | 7.42 | - | 7.42 | 0.07 | 0.16 | 7.26 |
| | 3rd month | 7.26 | - | 7.26 | 0.07 | 0.16 | 7.10 |
| | 4th month | 7.10 | - | 7.10 | 0.07 | 0.16 | 6.94 |
| | 5th month | 6.94 | - | 6.94 | 0.06 | 0.16 | 6.78 |
| | 6th month | 6.78 | - | 6.78 | 0.06 | 0.16 | 6.63 |
| | 7th month | 6.63 | - | 6.63 | 0.06 | 0.16 | 6.47 |
| | 8th month | 6.47 | - | 6.47 | 0.06 | 0.16 | 6.31 |
| | 9th month | 6.31 | - | 6.31 | 0.06 | 0.16 | 6.15 |
| | 10th month | 6.15 | - | 6.15 | 0.06 | 0.16 | 6.00 |
| | 11th month | 6.00 | - | 6.00 | 0.05 | 0.16 | 5.84 |
| | 12th month | 5.84 | - | 5.84 | 0.05 | 0.16 | 5.68 |
| | | | | | 0.74 | 1.89 | |
| 3rd | Opening Balance | | | | | | |
| | 1st month | 5.68 | - | 5.68 | 0.05 | 0.16 | 5.52 |
| | 2nd month | 5.52 | - | 5.52 | 0.05 | 0.16 | 5.36 |
| | 3rd month | 5.36 | - | 5.36 | 0.05 | 0.16 | 5.21 |
| | 4th month | 5.21 | - | 5.21 | 0.05 | 0.16 | 5.05 |

| | | | | | | | |
|------------|-----------------|------|---|------|-------------|-------------|------|
| | 5th month | 5.05 | - | 5.05 | 0.05 | 0.16 | 4.89 |
| | 6th month | 4.89 | - | 4.89 | 0.04 | 0.16 | 4.73 |
| | 7th month | 4.73 | - | 4.73 | 0.04 | 0.16 | 4.58 |
| | 8th month | 4.58 | - | 4.58 | 0.04 | 0.16 | 4.42 |
| | 9th month | 4.42 | - | 4.42 | 0.04 | 0.16 | 4.26 |
| | 10th month | 4.26 | - | 4.26 | 0.04 | 0.16 | 4.10 |
| | 11th month | 4.10 | - | 4.10 | 0.04 | 0.16 | 3.94 |
| | 12th month | 3.94 | - | 3.94 | 0.04 | 0.16 | 3.79 |
| | | | | | 0.53 | 1.89 | |
| 4th | Opening Balance | | | | | | |
| | 1st month | 3.79 | - | 3.79 | 0.03 | 0.16 | 3.63 |
| | 2nd month | 3.63 | - | 3.63 | 0.03 | 0.16 | 3.47 |
| | 3rd month | 3.47 | - | 3.47 | 0.03 | 0.16 | 3.31 |
| | 4th month | 3.31 | - | 3.31 | 0.03 | 0.16 | 3.16 |
| | 5th month | 3.16 | - | 3.16 | 0.03 | 0.16 | 3.00 |
| | 6th month | 3.00 | - | 3.00 | 0.03 | 0.16 | 2.84 |
| | 7th month | 2.84 | - | 2.84 | 0.03 | 0.16 | 2.68 |
| | 8th month | 2.68 | - | 2.68 | 0.02 | 0.16 | 2.52 |
| | 9th month | 2.52 | - | 2.52 | 0.02 | 0.16 | 2.37 |
| | 10th month | 2.37 | - | 2.37 | 0.02 | 0.16 | 2.21 |
| | 11th month | 2.21 | - | 2.21 | 0.02 | 0.16 | 2.05 |
| | 12th month | 2.05 | - | 2.05 | 0.02 | 0.16 | 1.89 |
| | | | | | 0.32 | 1.89 | |

| | | | | | | | |
|--------------------------------|-----------------|-----------|---|------|-------------|-------------|------|
| 5th | Opening Balance | | | | | | |
| | 1st month | 1.89 | - | 1.89 | 0.02 | 0.16 | 1.74 |
| | 2nd month | 1.74 | - | 1.74 | 0.02 | 0.16 | 1.58 |
| | 3rd month | 1.58 | - | 1.58 | 0.01 | 0.16 | 1.42 |
| | 4th month | 1.42 | - | 1.42 | 0.01 | 0.16 | 1.26 |
| | 5th month | 1.26 | - | 1.26 | 0.01 | 0.16 | 1.10 |
| | 6th month | 1.10 | - | 1.10 | 0.01 | 0.16 | 0.95 |
| | 7th month | 0.95 | - | 0.95 | 0.01 | 0.16 | 0.79 |
| | 8th month | 0.79 | - | 0.79 | 0.01 | 0.16 | 0.63 |
| | 9th month | 0.63 | - | 0.63 | 0.01 | 0.16 | 0.47 |
| | 10th month | 0.47 | - | 0.47 | 0.00 | 0.16 | 0.32 |
| | 11th month | 0.32 | - | 0.32 | 0.00 | 0.16 | 0.16 |
| | 12th month | 0.16 | - | 0.16 | 0.00 | 0.16 | - |
| | | | | | 0.11 | 1.89 | |
| DOOR TO DOOR MORATORIUM PERIOD | | 60 MONTHS | | | | | |
| REPAYMENT PERIOD | | 54 MONTHS | | | | | |

5.14 Break Even Point Analysis

| | | | | | |
|----------------------------------|----------|-----------|------------|-----------|----------|
| | | | | | |
| BREAK EVEN POINT ANALYSIS | | | | | |
| - | | | | | |
| Year | I | II | III | IV | V |
| | | | | | |

| | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|
| Net Sales & Other Income | 39.67 | 47.32 | 53.53 | 60.23 | 67.48 |
| Less : Op. WIP Goods | - | 1.60 | 1.80 | 2.01 | 2.23 |
| Add : Cl. WIP Goods | 1.60 | 1.80 | 2.01 | 2.23 | 2.48 |
| | | | | | |
| Total Sales | 41.27 | 47.52 | 53.73 | 60.46 | 67.72 |
| | | | | | |
| Variable & Semi Variable Exp. | | | | | |
| | | | | | |
| Raw Material Consumed | 23.04 | 26.21 | 29.64 | 33.34 | 37.33 |
| Electricity Exp/Coal Consumption at 85% | 0.73 | 0.81 | 0.89 | 0.98 | 1.08 |
| Wages & Salary at 60% | 5.22 | 5.74 | 6.32 | 6.95 | 7.64 |
| Selling & administrative Expenses 80% | 1.11 | 1.32 | 1.50 | 1.69 | 1.89 |
| Interest on working Capital | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Repair & maintenance | 0.79 | 1.18 | 1.34 | 1.51 | 1.69 |
| Total Variable & Semi Variable Exp | 31.45 | 35.82 | 40.23 | 45.00 | 50.18 |
| | | | | | |
| Contribution | 9.83 | 11.70 | 13.50 | 15.45 | 17.54 |
| | | | | | |
| Fixed & Semi Fixed Expenses | | | | | |
| | | | | | |
| Electricity Exp/Coal Consumption at 15% | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 |
| Wages & Salary at 40% | 3.48 | 3.83 | 4.21 | 4.63 | 5.10 |
| Interest on Term Loan | 0.84 | 0.74 | 0.53 | 0.32 | 0.11 |
| Depreciation | 1.65 | 1.41 | 1.20 | 1.03 | 0.88 |
| Selling & administrative Expenses 20% | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 |
| Rent | 1.80 | 1.98 | 2.18 | 2.40 | 2.64 |
| Total Fixed Expenses | 8.18 | 8.43 | 8.65 | 8.97 | 9.38 |
| | | | | | |
| Capacity Utilization | 60% | 65% | 70% | 75% | 80% |
| OPERATING PROFIT | 1.65 | 3.27 | 4.85 | 6.48 | 8.16 |
| BREAK EVEN POINT | 50% | 47% | 45% | 44% | 43% |
| BREAK EVEN SALES | 34.36 | 34.23 | 34.43 | 35.09 | 36.22 |
| | | | | | |

6. LICENSE & APPROVALS

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

7. ASSUMPTIONS

1. Production Capacity of Gram Chana Dal is 400 kg per day. First year, Capacity has been taken @ 60%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 21 days and Finished goods Closing Stock has been taken for 15 days.
4. Credit period to Sundry Debtors has been given for 30 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 6 KW.
10. Increase in sales and raw material costing has been taken @ 5% on an yearly basis.

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.