

## **DETAILED PROJECT REPORT**

## OATS MAKING UNIT

## **UNDER PMFME SCHEME**



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PM FME- Detailed Project Report of Oats Making Unit

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# **1. PROJECT SUMMARY**

| 1. Name of the proposed project                   | : | Oats Making Unit                                                                                              |
|---------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------|
| 2. Nature of proposed project                     | : | Proprietorship/Company/Partnership                                                                            |
| 3. Proposed project capacity                      | : | 432000 Kg/annum(40,45,50,55&60% capacity utilization in 1 <sup>st</sup> to 5 <sup>th</sup> Year respectively) |
| 4. Raw material                                   | : | Oat Grains                                                                                                    |
| 5. Major product outputs                          | : | Oats                                                                                                          |
| 6. Total project cost                             | : | Rs. 39.29 Lakh                                                                                                |
| • Land development, building & Civil Construction | : | Nil                                                                                                           |
| Machinery and equipment's                         | : | Rs. 22.85 Lakh                                                                                                |
| Miscellaneous Fixed Assets                        | : | Rs. 2.00 Lakh                                                                                                 |
| Working capital                                   | : | Rs. 14.44 Lakh                                                                                                |
| 8. Means of Finance                               |   |                                                                                                               |
| • Subsidy (max 10lakhs)                           | : | Rs. 8.70 Lakh                                                                                                 |
| • Promoter's contribution (min10%)                | : | Rs. 3.93 Lakh                                                                                                 |
| Term loan                                         | : | Rs. 13.67 Lakh                                                                                                |
| Working Capital Requirement                       | : | Rs. 13.00 Lakh                                                                                                |
| 9. Profit after Depreciation, Interest & Tax      |   |                                                                                                               |
| • 1 <sup>st</sup> year                            | : | Rs. 2.49 Lakh                                                                                                 |
| • 2 <sup>nd</sup> year                            | : | Rs. 5.27 Lakh                                                                                                 |
| • 3 <sup>rd</sup> year                            | : | Rs. 8.54 Lakh                                                                                                 |
| • 4 <sup>th</sup> year                            | : | Rs. 11.51 Lakh                                                                                                |
| • 5th year                                        | : | Rs. 15.92 Lakh                                                                                                |
| 11. Average DSCR                                  | : | Rs. 3.52                                                                                                      |
| 12. Term loan repayment                           | : | 5 Years with 6 months grace period                                                                            |

#### **ABOUT THE PRODUCT**

#### **2.1. PRODUCT INTRODUCTION:**

Oats (*Avena sativa*) are grown in most of the temperate regions of the world, especially in the United States, Canada, and northern Europe. Most of the oats produced are used in animal feed, although they may also be processed for human consumption. Whether it's a bowl of overnight steel-cut, batch of oatmeal raisin muffins, or slice of comforting oatmeal pie, versatile oatmeal comes in many forms. (Avena Sativa) grow in fields like wheat and barley year round. Crops sown in spring and harvested in August are called 'spring '. Crops sown in September and harvested in spring are called 'winter '. They are easy to spot when you know to look for their tell-tale husks dangling off the main stalk, or the oat flowers which are a familiar sight all year round in Scotland. The groat or oat is inside, protected by the husk. The grain is grown in cool summer temperatures and plentiful rain to ripen slowly and plump up, so it's no surprise that the Scottish climate is perfect.

Oat (Avena sativa L.) is generally grown in India for fodder purposes. But of late, its importance as grain has been felt and efforts are now being made to develop oat varieties which could give high fodder yield as well as grain yield from the same crop. Oats area and production in the World are about 27m ha and 40m tones, respectively. Countries cultivating oats widely are Russian federation, USA, Canada, Poland, China, France and Australia. In India, Punjab, Haryana, UP and limited areas in MP, Orissa, Bihar, West Bengal are the Oats growing states.

#### **2.2. MARKET POTENTIAL:**

The high nutritive content of oats is the major driver of the market. Additionally, an increase in preference for healthy meals and demand for convenience food is also driving the global oats market. Also, its added functional properties enhance its usage by the consumers; it is witnessed to be consumed majorly as a breakfast food. Moreover, the fast-paced lifestyle led by the working population has catalyzed the demand for ready-to-eat oats products. Also, the rising cultivation of oats has led to increased availability of the product globally. The organized breakfast cereal market in India is estimated at Rs 1,400 crore, with oats being the fastest-growing category, with around 30% value share. It has grown at a rate in excess of 10% over the last five years. Mirroring the trend, companies were quick to introduce oats variants, with new launches growing by almost 74% over a five-year period.

#### 2.3. RAW MATERIAL DESCRIPTION:

Oat grain is the only ingredient in oatmeal. The seeds of the Avena grasses are harvested in the fall. The thinner-skinned grains are preferable as they have high protein content without being overly starchy.

#### 3. PROCESS FLOW CHART

Oats are a staple of the American diet found in oatmeal, bread, cereal, granola, and many other foods, but there is complex process behind getting the oats from the soil to the table. There are a variety of steps to transform oats to oatmeal.

- Cleaning: Cleaning eliminates all unwanted materials from the oats. Pass under magnetic separators and through a rotating screen which removes scraps, sticks, stones, corn, etc. Finally, oats go through aspiration and a de-stoner extracting hulls, lighter, low grade, pebbles, and other grains.
- Hulling: After cleaning, oats must be de-hulled, as the hulls of oats are indigestible. To remove the hull, rotating discs fling oats into rings that cause the hull to fall off without damaging the rest of the oat. This remaining oat is known as a groat.
- Kilning: The next stage of the process is drying or kilning. Due to the fat content in , must be dried to achieve browning and desired tastes. The oats are sent to long vertical cylinders where air and steam is injected to increase temperature and moisture. While the moisture helps increase the enzyme content, it's bad for shelf stability and can ruin the product. Radiant heating is used to remove this excess moisture. This step is important for developing the oat's nutty flavor, and it also kills any inactive yeast or bacteria.
- Rolling or cutting: Standard oats are those that have been steel-cut. The oats are run through a machine with razor-sharp knife blades. Quickcooking oats are rolled between cylinders to produce a flatter, lighter flake. These processes are usually repeated several times to produce the type of oat flake that is desired. In both processes, the hull is separated from the grain. The hulls are sifted out and used for other purposes.
- Roasting: The hulled oats are then placed into a roaster where they are toasted at a preset temperature for a pre-determined amount of time.

• Packaging: Pre-printed containers are filled with pre-measured amounts of oatmeal. A lid is vacuum-packed onto the top of the container. The containers are then loaded into cartons for shipment.



## 4. ECONOMICS OF THE PROJECT

#### 4.1. BASIS & PRESUMPTIONS

1. Production Capacity of Oats is 240 kg per hr. First year, Capacity has been taken @ 40%.

2. Working shift of 8 hours per day has been considered.

- 3. Raw Material stock is for 10 days and Finished goods Closing Stock has been taken for 10 days.
- 4. Credit period to Sundry Debtors has been given for 7 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 15 KW.
- 10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.

# 4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

| <b>COMPUTATION OF PRODUCTION OF O</b>     | ATS    |             |
|-------------------------------------------|--------|-------------|
| Items to be Manufactured                  |        |             |
| Oats                                      |        |             |
|                                           |        |             |
| Machine capacity Per hour                 | 240    | Kg          |
| Total working Hours                       | 8      |             |
| Machine capacity Per Day                  | 1,920  | Kg          |
| Working days in a month                   | 25     | Days        |
| Working days per annum                    | 300    |             |
| Wastage Considered                        | 25%    |             |
| Raw material requirement                  | 576000 | Kg          |
| Final Output per annum after wastage      | 432000 | Kg          |
| Final Product to be packed in 1 kg packet |        |             |
| Number of packets per annum               | 432000 | 1 Kg Packet |

| Production of Oats |          |          |  |  |  |
|--------------------|----------|----------|--|--|--|
| Production         | Capacity | KG       |  |  |  |
| 1st year           | 40%      | 1,72,800 |  |  |  |
| 2nd year           | 45%      | 1,94,400 |  |  |  |
| 3rd year           | 50%      | 2,16,000 |  |  |  |
| 4th year           | 55%      | 2,37,600 |  |  |  |
| 5th year           | 60%      | 2,59,200 |  |  |  |

| Raw Material Cos | st          |          |               |
|------------------|-------------|----------|---------------|
| Year             | Capacity    | Rate     | Amount        |
|                  | Utilisation | (per Kg) | (Rs. in lacs) |
| 1st year         | 40%         | 75.00    | 172.80        |
| 2nd year         | 45%         | 79.00    | 204.77        |
| 3rd year         | 50%         | 83.00    | 239.04        |
| 4th year         | 55%         | 87.00    | 275.62        |
| 5th year         | 60%         | 91.00    | 314.50        |

| COMPUTATION OI        | <u>SALE</u> |          |          |          |          |
|-----------------------|-------------|----------|----------|----------|----------|
| Particulars           | 1st year    | 2nd year | 3rd year | 4th year | 5th year |
| Op Stock              | -           | 5,760    | 6,480    | 7,200    | 7,920    |
| Production            | 1,72,800    | 1,94,400 | 2,16,000 | 2,37,600 | 2,59,200 |
| Less : Closing Stock  | 5,760       | 6,480    | 7,200    | 7,920    | 8,640    |
| Net Sale              | 1,67,040    | 1,93,680 | 2,15,280 | 2,36,880 | 2,58,480 |
| Sale price per packet | 140.00      | 147.00   | 154.00   | 162.00   | 170.00   |
| Sales (in Lacs)       | 233.86      | 284.71   | 331.53   | 383.75   | 439.42   |

## 4.3. PREMISES/INFRASTRUCTURE

The approximate total area required for complete factory setup is 2000-2500 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. |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Dry stoner                 | This machine is used for the<br>separation of stones in a<br>continuous process. Due to its<br>mode of operation, the dry<br>stoner separates specifically<br>heavier components from the<br>lighter accepted product. |                |
| De-hulling                 | Before oats can be industrially<br>processed they have to be<br>hulled, de-awned or polished.                                                                                                                          |                |
| Vibro Separator            | A vibro separator then separates<br>the grain from any un-hulled<br>oats that may have snuck<br>through.                                                                                                               |                |
| Rolling/Cutting<br>Machine | The oats are run through a<br>machine with razor-sharp knife<br>blades. Quick-cooking oats are<br>rolled between cylinders to<br>produce a flatter, lighter flake.                                                     |                |

| Roasting Machine                             | The oats roasting machine are<br>full of cutting-edge technologies<br>and innovations that make<br>industrial processes easy to<br>execute. |  |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--|
| Packaging Machine                            | It's a packing class machine,<br>used to pack given efficiently.<br>It's especially designed to<br>handle with minimum wastage              |  |
| Bucket Elevator with<br>Gear Motor           | Bucket elevators are designed to<br>move flowing powders or bulk<br>solids vertically.                                                      |  |
| Material handling<br>and other<br>Equipments | These Equipments are used for material handling.                                                                                            |  |

| Machine                     | Unit | Rate     | Price    |
|-----------------------------|------|----------|----------|
| Dry Stoner (200 kg/hr)      | 1    | 2,80,000 | 2,80,000 |
| De-hulling                  | 1    | 2,60,000 | 2,60,000 |
| Vibro Separator (300 kg/hr) | 1    | 1,75,000 | 1,75,000 |
| Rolling/Cutting machine     | 1    | 5,40,000 | 5,40,000 |
| Roasting Machine            | 1    | 2,50,000 | 2,50,000 |
| Packaging Machine (8-10     | 1    | 2,70,000 | 2,70,000 |
| packets per minute)         |      |          |          |

| Bucket elevator with gear   | 1 | 1,10,000 | 1,10,000 |
|-----------------------------|---|----------|----------|
| motor (300 kg/hr)           |   |          |          |
| Material handling and other | - | 4,00,000 | 4,00,000 |
| equipments                  |   |          |          |

**Note:** Approx. Total Machinery cost shall be Rs 22.85 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 PR                                | OJECT         |
|-------------------------------------------|---------------|
|                                           | (in Lacs)     |
| PARTICULARS                               | Amount        |
| Land & Building                           | Owned/Rented  |
| Plant & Machinery<br>Miscellaneous Assets | 22.85<br>2.00 |
| Working capital                           | 14.44         |
| Total                                     | 39.29         |

## **4.7. MEANS OF FINANCE**

| MEANS OF FINANCE               |        |  |
|--------------------------------|--------|--|
| PARTICULARS                    | AMOUNT |  |
| Own Contribution (min 10%)     | 3.93   |  |
| Subsidy @35%(Max. Rs 10 Lac)   | 8.70   |  |
| Term Loan @ 55%                | 13.67  |  |
| Working Capital (Bank Finance) | 13.00  |  |
| Total                          | 39.29  |  |

# **4.8. TERM LOAN:** Term loan of Rs. 13.67 Lakh is required for project cost of Rs. 39.29 Lakh

#### 4.9. TERM LOAN REPAYMENT & INTEREST SCHEDULE

|      | REPAYMENT SCHEDULE OF TERM LOAN |                |          |       |              |           |                    |  |  |  |
|------|---------------------------------|----------------|----------|-------|--------------|-----------|--------------------|--|--|--|
|      |                                 |                |          |       |              | Interest  | 11.00%             |  |  |  |
| Year | Particulars                     | Amount         | Addition | Total | Interest     | Repayment | Closing<br>Balance |  |  |  |
| 1st  | Opening Balance                 |                |          |       |              |           |                    |  |  |  |
|      | 1st month                       | -              | 13.67    | 13.67 | -            | -         | 13.67              |  |  |  |
|      | 2nd month                       | 13.67          | -        | 13.67 | 0.13         | -         | 13.67              |  |  |  |
|      | 3rd month                       | 13.67          | -        | 13.67 | 0.13         | -         | 13.67              |  |  |  |
|      | 4th month<br>5th month          | 13.67<br>13.67 | -        | 13.67 | 0.13<br>0.13 |           | 13.67<br>13.67     |  |  |  |

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|     |                 |       |   | 13.67 |      |      |       |
|-----|-----------------|-------|---|-------|------|------|-------|
|     | 6th month       | 13.67 | - | 13.67 | 0.13 |      | 13.67 |
|     | 7th month       | 13.67 | - | 13.67 | 0.13 | 0.25 | 13.41 |
|     | 8th month       | 13.41 | - | 13.41 | 0.12 | 0.25 | 13.16 |
|     | 9th month       | 13.16 | - | 13.16 | 0.12 | 0.25 | 12.91 |
|     | 10th month      | 12.91 | - | 12.91 | 0.12 | 0.25 | 12.66 |
|     | 11th month      | 12.66 | - | 12.66 | 0.12 | 0.25 | 12.40 |
|     | 12th month      | 12.40 | - | 12.40 | 0.11 | 0.25 | 12.15 |
|     |                 |       |   |       | 1.34 | 1.52 |       |
| 2nd | Opening Balance |       |   |       |      |      |       |
|     | 1st month       | 12.15 | - | 12.15 | 0.11 | 0.25 | 11.90 |
|     | 2nd month       | 11.90 | - | 11.90 | 0.11 | 0.25 | 11.64 |
|     | 3rd month       | 11.64 | - | 11.64 | 0.11 | 0.25 | 11.39 |
|     | 4th month       | 11.39 | - | 11.39 | 0.10 | 0.25 | 11.14 |
|     | 5th month       | 11.14 | - | 11.14 | 0.10 | 0.25 | 10.88 |
|     | 6th month       | 10.88 | - | 10.88 | 0.10 | 0.25 | 10.63 |
|     | 7th month       | 10.63 | - | 10.63 | 0.10 | 0.25 | 10.38 |
|     | 8th month       | 10.38 | - | 10.38 | 0.10 | 0.25 | 10.12 |
|     | 9th month       | 10.12 | - | 10.12 | 0.09 | 0.25 | 9.87  |
|     | 10th month      | 9.87  | - | 9.87  | 0.09 | 0.25 | 9.62  |
|     | 11th month      | 9.62  | - | 9.62  | 0.09 | 0.25 | 9.36  |
|     | 12th month      | 9.36  | - | 9.36  | 0.09 | 0.25 | 9.11  |
|     |                 |       |   |       | 1.18 | 3.04 |       |
| 3rd | Opening Balance |       |   |       |      |      |       |
|     | 1st month       | 9.11  | - | 9.11  | 0.08 | 0.25 | 8.86  |

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| I   |                                                                                                                   |                                                                                                                            |                  |                                                                                                                            |                                                      |                                                              | 1                                                                                                                          |
|-----|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|     | 2nd month                                                                                                         | 8.86                                                                                                                       | -                | 8.86                                                                                                                       | 0.08                                                 | 0.25                                                         | 8.61                                                                                                                       |
|     | 3rd month                                                                                                         | 8.61                                                                                                                       | -                | 8.61                                                                                                                       | 0.08                                                 | 0.25                                                         | 8.35                                                                                                                       |
|     | 4th month                                                                                                         | 8.35                                                                                                                       | -                | 8.35                                                                                                                       | 0.08                                                 | 0.25                                                         | 8.10                                                                                                                       |
|     | 5th month                                                                                                         | 8.10                                                                                                                       | -                | 8.10                                                                                                                       | 0.07                                                 | 0.25                                                         | 7.85                                                                                                                       |
|     | 6th month                                                                                                         | 7.85                                                                                                                       | -                | 7.85                                                                                                                       | 0.07                                                 | 0.25                                                         | 7.59                                                                                                                       |
|     | 7th month                                                                                                         | 7.59                                                                                                                       | -                | 7.59                                                                                                                       | 0.07                                                 | 0.25                                                         | 7.34                                                                                                                       |
|     | 8th month                                                                                                         | 7.34                                                                                                                       | -                | 7.34                                                                                                                       | 0.07                                                 | 0.25                                                         | 7.09                                                                                                                       |
|     | 9th month                                                                                                         | 7.09                                                                                                                       | -                | 7.09                                                                                                                       | 0.06                                                 | 0.25                                                         | 6.83                                                                                                                       |
|     | 10th month                                                                                                        | 6.83                                                                                                                       | -                | 6.83                                                                                                                       | 0.06                                                 | 0.25                                                         | 6.58                                                                                                                       |
|     | 11th month                                                                                                        | 6.58                                                                                                                       | -                | 6.58                                                                                                                       | 0.06                                                 | 0.25                                                         | 6.33                                                                                                                       |
|     | 12th month                                                                                                        | 6.33                                                                                                                       | -                | 6.33                                                                                                                       | 0.06                                                 | 0.25                                                         | 6.07                                                                                                                       |
|     |                                                                                                                   |                                                                                                                            |                  |                                                                                                                            | 0.85                                                 | 3.04                                                         |                                                                                                                            |
| 4th | Opening Balance                                                                                                   |                                                                                                                            |                  |                                                                                                                            |                                                      |                                                              |                                                                                                                            |
| 4th | Opening Balance<br>1st month                                                                                      | 6.07                                                                                                                       | _                | 6.07                                                                                                                       | 0.06                                                 | 0.25                                                         | 5.82                                                                                                                       |
| 4th |                                                                                                                   | 6.07<br>5.82                                                                                                               | -                | 6.07<br>5.82                                                                                                               | 0.06<br>0.05                                         | 0.25<br>0.25                                                 | 5.82<br>5.57                                                                                                               |
| 4th | 1st month                                                                                                         |                                                                                                                            |                  |                                                                                                                            |                                                      |                                                              |                                                                                                                            |
| 4th | 1st month<br>2nd month                                                                                            | 5.82                                                                                                                       |                  | 5.82                                                                                                                       | 0.05                                                 | 0.25                                                         | 5.57                                                                                                                       |
| 4th | 1st month<br>2nd month<br>3rd month                                                                               | 5.82<br>5.57                                                                                                               | -                | 5.82<br>5.57                                                                                                               | 0.05<br>0.05                                         | 0.25<br>0.25                                                 | 5.57<br>5.32                                                                                                               |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month                                                                  | 5.82<br>5.57<br>5.32                                                                                                       | -                | 5.82<br>5.57<br>5.32                                                                                                       | 0.05<br>0.05<br>0.05                                 | 0.25<br>0.25<br>0.25                                         | 5.57<br>5.32<br>5.06                                                                                                       |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month<br>5th month                                                     | 5.82<br>5.57<br>5.32<br>5.06                                                                                               | -                | <ul><li>5.82</li><li>5.57</li><li>5.32</li><li>5.06</li></ul>                                                              | 0.05<br>0.05<br>0.05<br>0.05                         | 0.25<br>0.25<br>0.25<br>0.25                                 | <ul><li>5.57</li><li>5.32</li><li>5.06</li><li>4.81</li></ul>                                                              |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month<br>5th month<br>6th month                                        | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> </ul>                                           | -<br>-<br>-      | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> </ul>                                           | 0.05<br>0.05<br>0.05<br>0.05<br>0.04                 | 0.25<br>0.25<br>0.25<br>0.25<br>0.25                         | <ul> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> </ul>                                           |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month<br>5th month<br>6th month<br>7th month                           | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> </ul>                             | -<br>-<br>-<br>- | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> </ul>                             | 0.05<br>0.05<br>0.05<br>0.05<br>0.04<br>0.04         | 0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25                 | <ul> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> </ul>                             |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month<br>5th month<br>6th month<br>7th month<br>8th month              | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> </ul>               | -<br>-<br>-<br>- | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> </ul>               | 0.05<br>0.05<br>0.05<br>0.05<br>0.04<br>0.04<br>0.04 | 0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25         | <ul> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> <li>4.05</li> </ul>               |
| 4th | 1st month<br>2nd month<br>3rd month<br>4th month<br>5th month<br>6th month<br>7th month<br>8th month<br>9th month | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> <li>4.05</li> </ul> | -<br>-<br>-<br>- | <ul> <li>5.82</li> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> <li>4.05</li> </ul> | 0.05<br>0.05<br>0.05<br>0.04<br>0.04<br>0.04<br>0.04 | 0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25 | <ul> <li>5.57</li> <li>5.32</li> <li>5.06</li> <li>4.81</li> <li>4.56</li> <li>4.30</li> <li>4.05</li> <li>3.80</li> </ul> |

| 1                          |      |        |      |      |      |      |
|----------------------------|------|--------|------|------|------|------|
| 12th month                 | 3.29 | -      | 3.29 | 0.03 | 0.25 | 3.04 |
|                            |      |        |      | 0.52 | 3.04 |      |
| <b>5th</b> Opening Balance |      |        |      |      |      |      |
| 1st month                  | 3.04 | -      | 3.04 | 0.03 | 0.25 | 2.78 |
| 2nd month                  | 2.78 | -      | 2.78 | 0.03 | 0.25 | 2.53 |
| 3rd month                  | 2.53 | -      | 2.53 | 0.02 | 0.25 | 2.28 |
| 4th month                  | 2.28 | -      | 2.28 | 0.02 | 0.25 | 2.02 |
| 5th month                  | 2.02 | -      | 2.02 | 0.02 | 0.25 | 1.77 |
| 6th month                  | 1.77 | -      | 1.77 | 0.02 | 0.25 | 1.52 |
| 7th month                  | 1.52 | -      | 1.52 | 0.01 | 0.25 | 1.27 |
| 8th month                  | 1.27 | -      | 1.27 | 0.01 | 0.25 | 1.01 |
| 9th month                  | 1.01 | -      | 1.01 | 0.01 | 0.25 | 0.76 |
| 10th month                 | 0.76 | -      | 0.76 | 0.01 | 0.25 | 0.51 |
| 11th month                 | 0.51 | -      | 0.51 | 0.00 | 0.25 | 0.25 |
| 12th month                 | 0.25 | -      | 0.25 | 0.00 | 0.25 | -    |
|                            |      |        |      | 0.18 | 3.04 |      |
| DOOR TO DOOR<br>MORATORIUM | 60   | MONTHS |      |      |      |      |
| PERIOD                     | 6    | MONTHS |      |      |      |      |
| REPAYMENT PERIOD           | 54   | MONTHS |      |      |      |      |

## 4.10. WORKING CAPITAL CALCULATIONS

| <b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b> |          |          |          |          |          |  |  |  |  |
|-----------------------------------------------------------|----------|----------|----------|----------|----------|--|--|--|--|
| PARTICULARS                                               | 1st year | 2nd year | 3rd year | 4th year | 5th year |  |  |  |  |
| Finished Goods                                            |          |          |          |          |          |  |  |  |  |
|                                                           | 7.38     | 8.72     | 10.03    | 11.52    | 13.06    |  |  |  |  |
|                                                           |          |          |          |          |          |  |  |  |  |
| Raw Material                                              |          |          |          |          |          |  |  |  |  |
|                                                           | 5.76     | 6.83     | 7.97     | 9.19     | 10.48    |  |  |  |  |
| Closing Stock                                             | 13.14    | 15.54    | 18.00    | 20.71    | 23.54    |  |  |  |  |

| COMPUTATION OF WORKING CAPITAL REQUIREMENT |          |            |      |           |          |  |  |
|--------------------------------------------|----------|------------|------|-----------|----------|--|--|
| TRADITIONAL METHOD                         |          |            |      | (1        | in Lacs) |  |  |
| Particulars                                | Amount   | Own Ma     | rgin | Bank Fina | nce      |  |  |
| Finished Goods & Raw Material              | 13.14    |            |      |           |          |  |  |
| Less : Creditors                           | 4.03     |            |      |           |          |  |  |
| Paid stock                                 | 9.11     | 10%        | 0.91 | 90%       | 8.20     |  |  |
| Sundry Debtors                             | 5.46     | 10%        | 0.55 | 90%       | 4.91     |  |  |
|                                            | 14.57    |            | 1.46 |           | 13.11    |  |  |
| MPBF                                       |          |            |      |           | 13.11    |  |  |
| WORKING CAPITAL LIMIT                      | DEMAND ( | from Bank) |      |           | 13.00    |  |  |
| Working Capital Margin                     |          |            |      |           | 1.44     |  |  |

# 4.11. SALARY & WAGES

| Particulars                    | Wages         | No of     | Total    |
|--------------------------------|---------------|-----------|----------|
|                                | Rs. per Month | Employees | Salary   |
| Machine Operator               | 15,000        | 4         | 60,000   |
| Supervisor                     | 20,000        | 1         | 20,000   |
| Skilled (in thousand rupees)   | 12,000        | 4         | 48,000   |
| Unskilled (in thousand rupees) | 8,500         | 5         | 42,500   |
| Total salary per month         |               |           | 1,70,500 |
| Total annual labour charges    | (in lacs)     |           | 20.46    |

| BREAK UP OF STAFF SALAR    | Y CHARGES     |           |        |
|----------------------------|---------------|-----------|--------|
| Particulars                | Salary        | No of     | Total  |
|                            | Rs. per Month | Employees | Salary |
| Administrative Staff       | 8,000         | 4         | 32,000 |
| Manager                    | 20,000        | 1         | 20,000 |
| Accountant                 | 15,000        | 1         | 15,000 |
| Total salary per month     |               |           | 67,000 |
| Total annual Staff charges | (in lacs)     |           | 8.04   |

# 4.12 POWER REQUIREMENT

| Utility Charges (per month) |        |             |  |  |  |  |
|-----------------------------|--------|-------------|--|--|--|--|
| Particulars                 | value  | Description |  |  |  |  |
| Power connection required   | 15     | KWH         |  |  |  |  |
| consumption per day         | 120    | units       |  |  |  |  |
| Consumption per month       | 3,000  | units       |  |  |  |  |
| Rate per Unit               | 10     | Rs.         |  |  |  |  |
| power Bill per month        | 30,000 | Rs.         |  |  |  |  |

## 4.13. DEPRECIATION CALCULATION

| <b>COMPUTATION OF DEPRE</b> | <b><u>COMPUTATION OF DEPRECIATION</u></b> (in Lacs) |              |       |  |  |  |  |  |
|-----------------------------|-----------------------------------------------------|--------------|-------|--|--|--|--|--|
| Description                 | Plant & Machinery                                   | Miss. Assets | TOTAL |  |  |  |  |  |
| Rate of Depreciation        | 15.00%                                              | 10.00%       |       |  |  |  |  |  |
| <b>Opening Balance</b>      | -                                                   | -            | -     |  |  |  |  |  |
|                             |                                                     |              |       |  |  |  |  |  |
| Addition                    | 22.85                                               | 2.00         | 24.85 |  |  |  |  |  |
| Total                       | 22.85                                               | 2.00         | 24.85 |  |  |  |  |  |
| Less : Depreciation         | 3.43                                                | 0.20         | 3.63  |  |  |  |  |  |
| WDV at end of Year          | 19.42                                               | 1.80         | 21.22 |  |  |  |  |  |
| Additions During The Year   | -                                                   | -            | -     |  |  |  |  |  |
| Total                       | 19.42                                               | 1.80         | 21.22 |  |  |  |  |  |
| Less : Depreciation         | 2.91                                                | 0.18         | 3.09  |  |  |  |  |  |
| WDV at end of Year          | 16.51                                               | 1.62         | 18.13 |  |  |  |  |  |
| Additions During The Year   | -                                                   | -            | -     |  |  |  |  |  |
| Total                       | 16.51                                               | 1.62         | 18.13 |  |  |  |  |  |
| Less : Depreciation         | 2.48                                                | 0.16         | 2.64  |  |  |  |  |  |
| WDV at end of Year          | 14.03                                               | 1.46         | 15.49 |  |  |  |  |  |
| Additions During The Year   | -                                                   | -            | -     |  |  |  |  |  |
| Total                       | 14.03                                               | 1.46         | 15.49 |  |  |  |  |  |
| Less : Depreciation         | 2.10                                                | 0.15         | 2.25  |  |  |  |  |  |
| WDV at end of Year          | 11.93                                               | 1.31         | 13.24 |  |  |  |  |  |
| Additions During The Year   | -                                                   | -            | -     |  |  |  |  |  |
| Total                       | 11.93                                               | 1.31         | 13.24 |  |  |  |  |  |
| Less : Depreciation         | 1.79                                                | 0.13         | 1.92  |  |  |  |  |  |
| WDV at end of Year          | 10.14                                               | 1.18         | 11.32 |  |  |  |  |  |

4.14. REPAIR & MAINTENANCE: Repair & Maintenance is 2.0% of Gross Sale.

## 4.15. PROJECTIONS OF PROFITABILITY ANALYSIS

| PROJECTED PROFITABILITY STATEMENT |          |          |          |          |          |  |
|-----------------------------------|----------|----------|----------|----------|----------|--|
| PARTICULARS                       | 1st year | 2nd year | 3rd year | 4th year | 5th year |  |
| Capacity Utilisation %            | 40%      | 45%      | -        | 55%      | 60%      |  |
|                                   |          |          |          |          |          |  |
| <u>SALES</u>                      |          |          |          |          |          |  |
| Gross Sale                        |          |          |          |          |          |  |
| Oats                              | 233.86   | 284.71   | 331.53   | 383.75   | 439.42   |  |
|                                   |          |          |          |          |          |  |
| Total                             | 233.86   | 284.71   | 331.53   | 383.75   | 439.42   |  |
| COST OF SALES                     |          |          |          |          |          |  |
| Raw Material Consumed             | 172.80   | 204.77   | 239.04   | 275.62   | 314.50   |  |
| Electricity Expenses              | 3.60     | 4.14     | 4.76     | 5.48     | 6.02     |  |
| Depreciation                      | 3.63     | 3.09     | 2.64     | 2.25     | 1.92     |  |
| Wages & labour                    | 20.46    | 22.51    | 24.76    | 27.73    | 31.89    |  |
| Repair & maintenance              | 4.68     | 5.69     | 6.63     | 7.67     | 8.79     |  |
| Packaging                         | 16.37    | 21.35    | 23.21    | 26.86    | 28.56    |  |
| <b>Cost of Production</b>         | 221.53   | 261.55   | 301.03   | 345.61   | 391.68   |  |
| Add: Opening Stock /WIP           | -        | 7.38     | 8.72     | 10.03    | 11.52    |  |
| Less: Closing Stock /WIP          | 7.38     | 8.72     | 10.03    | 11.52    | 13.06    |  |
| Cost of Sales                     | 214.15   | 260.22   | 299.72   | 344.12   | 390.14   |  |
| GROSS PROFIT                      | 19.71    | 24.49    | 31.81    | 39.62    | 49.28    |  |
|                                   | 8.43%    | 8.60%    | 9.60%    | 10.33%   | 11.21%   |  |
| Salary to Staff                   | 8.04     | 9.00     | 10.63    | 12.22    | 14.42    |  |
| Interest on Term Loan             | 1.34     | 1.18     | 0.85     | 0.52     | 0.18     |  |
| Interest on working Capital       | 1.43     | 1.43     | 1.43     | 1.43     | 1.43     |  |
| Rent                              | 3.60     | 3.96     | 4.36     | 4.79     | 5.27     |  |
| selling & adm exp                 | 2.81     | 3.42     | 4.97     | 6.91     | 7.91     |  |
| TOTAL                             | 17.22    | 18.99    | 22.23    | 25.86    | 29.21    |  |
| NET PROFIT                        | 2.49     | 5.49     | 9.58     | 13.76    | 20.07    |  |
|                                   | 1.06%    | 1.93%    | 2.89%    | 3.59%    | 4.57%    |  |
| Taxation                          | -        | 0.22     | 1.04     | 2.25     | 4.14     |  |
| PROFIT (After Tax)                | 2.49     | 5.27     | 8.54     | 11.51    | 15.92    |  |

# 4.16. BREAK EVEN POINT ANALYSIS

| BREAK EVEN POINT ANALYSIS               |        |        |        |        |        |
|-----------------------------------------|--------|--------|--------|--------|--------|
| Year                                    | Ι      | Π      | III    | IV     | V      |
|                                         |        |        |        |        |        |
| Net Sales & Other Income                | 233.86 | 284.71 | 331.53 | 383.75 | 439.42 |
| Less : Op. WIP Goods                    | -      | 7.38   | 8.72   | 10.03  | 11.52  |
| Add : Cl. WIP Goods                     | 7.38   | 8.72   | 10.03  | 11.52  | 13.06  |
| Total Sales                             | 241.24 | 286.04 | 332.85 | 385.23 | 440.95 |
| Variable & Semi Variable Exp.           |        |        |        |        |        |
| Raw Material Consumed                   | 172.80 | 204.77 | 239.04 | 275.62 | 314.50 |
| Electricity Exp/Coal Consumption at 85% | 3.06   | 3.52   | 4.05   | 4.65   | 5.12   |
| Wages & Salary at 60%                   | 17.10  | 18.91  | 21.23  | 23.97  | 27.78  |
| Selling & adminstrative Expenses 80%    | 2.25   | 2.73   | 3.98   | 5.53   | 6.33   |
| Interest on working Capital             | 1.43   | 1.43   | 1.43   | 1.43   | 1.43   |
| Repair & maintenance                    | 4.68   | 5.69   | 6.63   | 7.67   | 8.79   |
| Packaging                               | 16.37  | 21.35  | 23.21  | 26.86  | 28.56  |
| Total Variable & Semi Variable Exp      | 217.68 | 258.40 | 299.56 | 345.73 | 392.51 |
| Contribution                            | 23.56  | 27.64  | 33.28  | 39.50  | 48.45  |
| Fixed & Semi Fixed Expenses             |        |        |        |        |        |
| Electricity Exp/Coal Consumption at 15% | 0.54   | 0.62   | 0.71   | 0.82   | 0.90   |
| Wages & Salary at 40%                   | 11.40  | 12.60  | 14.15  | 15.98  | 18.52  |
| Interest on Term Loan                   | 1.34   | 1.18   | 0.85   | 0.52   | 0.18   |
| Depreciation                            | 3.63   | 3.09   | 2.64   | 2.25   | 1.92   |
| Selling & adminstrative Expenses 20%    | 0.56   | 0.68   | 0.99   | 1.38   | 1.58   |
| Rent                                    | 3.60   | 3.96   | 4.36   | 4.79   | 5.27   |
| Total Fixed Expenses                    | 21.07  | 22.15  | 23.71  | 25.74  | 28.38  |
| Capacity Utilization                    | 40%    | 45%    | 50%    | 55%    | 60%    |
| OPERATING PROFIT                        | 2.49   | 5.49   | 9.58   | 13.76  | 20.07  |
| BREAK EVEN POINT                        | 36%    | 36%    | 36%    | 36%    | 35%    |
| BREAK EVEN SALES                        | 215.78 | 229.18 | 237.05 | 251.02 | 258.31 |

# 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         |          | 13.11    | 15.88    | 19.42    | 23.93     |
| Add:- Own Capital       | 3.93     |          |          |          |           |
| Add:- Retained Profit   | 2.49     | 5.27     | 8.54     | 11.51    | 15.92     |
| Less:- Drawings         | 2.00     | 2.50     | 5.00     | 7.00     | 10.00     |
| Subsidy/grant           | 8.70     |          |          |          |           |
| Closing Balance         | 13.11    | 15.88    | 19.42    | 23.93    | 29.85     |
| Term Loan               | 12.15    | 9.11     | 6.07     | 3.04     | -         |
| Working Capital Limit   | 13.00    | 13.00    | 13.00    | 13.00    | 13.00     |
| Sundry Creditors        | 4.03     | 4.78     | 5.58     | 6.43     | 7.34      |
| Provisions & Other Liab | 0.40     | 0.50     | 0.60     | 0.72     | 0.86      |
| TOTAL :                 | 42.69    | 43.27    | 44.67    | 47.12    | 51.05     |
| Assets                  |          |          |          |          |           |
| Fixed Assets (Gross)    | 24.85    | 24.85    | 24.85    | 24.85    | 24.85     |
| Gross Dep.              | 3.63     | 6.72     | 9.36     | 11.61    | 13.53     |
| Net Fixed Assets        | 21.22    | 18.13    | 15.49    | 13.24    | 11.32     |
| Current Assets          |          |          |          |          |           |
| Sundry Debtors          | 5.46     | 6.64     | 7.74     | 8.95     | 10.25     |
| Stock in Hand           | 13.14    | 15.54    | 18.00    | 20.71    | 23.54     |
| Cash and Bank           | 2.87     | 2.96     | 3.45     | 4.22     | 5.94      |
| TOTAL :                 | 42.69    | 43.27    | 44.67    | 47.12    | 51.05     |

# 4.18. CASH FLOW STATEMENT

| PROJECTED CASH FLOW STATEMENT    |          |          |          |          |          |  |
|----------------------------------|----------|----------|----------|----------|----------|--|
| PARTICULARS                      | 1st year | 2nd year | 3rd year | 4th year | 5th year |  |
| SOURCES OF FUND                  |          |          |          |          |          |  |
|                                  |          |          |          |          |          |  |
| Own Margin                       | 3.93     |          |          |          |          |  |
| Net Profit                       | 2.49     | 5.49     | 9.58     | 13.76    | 20.07    |  |
| Depriciation & Exp. W/off        | 3.63     | 3.09     | 2.64     | 2.25     | 1.92     |  |
| Increase in Cash Credit          | 13.00    | -        | -        | -        | -        |  |
| Increase In Term Loan            | 13.67    | -        | -        | -        | -        |  |
| Increase in Creditors            | 4.03     | 0.75     | 0.80     | 0.85     | 0.91     |  |
| Increase in Provisions & Oth lib | 0.40     | 0.10     | 0.10     | 0.12     | 0.14     |  |
| Sunsidy/grant                    | 8.70     |          |          |          |          |  |
| TOTAL :                          | 49.84    | 9.43     | 13.12    | 16.99    | 23.04    |  |
| APPLICATION OF FUND              |          |          |          |          |          |  |
| Increase in Fixed Assets         | 24.85    |          |          |          |          |  |
| Increase in Stock                | 13.14    | 2.40     | 2.46     | 2.70     | 2.83     |  |
| Increase in Debtors              | 5.46     | 1.19     | 1.09     | 1.22     | 1.30     |  |
| Repayment of Term Loan           | 1.52     | 3.04     | 3.04     | 3.04     | 3.04     |  |
|                                  |          |          |          |          |          |  |
| Drawings                         | 2.00     | 2.50     | 5.00     | 7.00     | 10.00    |  |
| Taxation                         | _        | 0.22     | 1.04     | 2.25     | 4.14     |  |
| TOTAL :                          | 46.97    | 9.35     | 12.63    | 16.21    | 21.31    |  |
|                                  |          |          |          |          |          |  |
| Opening Cash & Bank Balance      | -        | 2.87     | 2.96     | 3.45     | 4.22     |  |
| Add : Surplus                    | 2.87     | 0.09     | 0.49     | 0.77     | 1.72     |  |
| Closing Cash & Bank Balance      | 2.87     | 2.96     | 3.45     | 4.22     | 5.94     |  |

# 4.19. DEBT SERVICE COVERAGE RATIO

| CALCULATION OF D.S.C.R      |          |          |          |          |          |
|-----------------------------|----------|----------|----------|----------|----------|
| PARTICULARS                 | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|                             |          |          |          |          |          |
| CASH ACCRUALS               | 6.11     | 8.36     | 11.18    | 13.76    | 17.84    |
| Interest on Term Loan       | 1.34     | 1.18     | 0.85     | 0.52     | 0.18     |
| Total                       | 7.46     | 9.55     | 12.03    | 14.27    | 18.02    |
|                             |          |          |          |          |          |
| <u>REPAYMENT</u>            |          |          |          |          |          |
| Instalment of Term Loan     | 1.52     | 3.04     | 3.04     | 3.04     | 3.04     |
| Interest on Term Loan       | 1.34     | 1.18     | 0.85     | 0.52     | 0.18     |
| Total                       | 2.86     | 4.22     | 3.89     | 3.55     | 3.22     |
| DEBT SERVICE COVERAGE RATIO | 2.61     | 2.26     | 3.09     | 4.02     | 5.60     |
| AVERAGE D.S.C.R.            |          |          |          |          | 3.52     |