

# DETAILED PROJECT REPORT ISABGOL PROCESSING UNIT UNDER PMFME SCHEME



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# 1. PROJECT SUMMARY

1. Name of the proposed project	:	Isabgol Processing Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	30000 Kg/annum (60,65,70,75&80% capacity utilization in 1 <sup>st</sup> to 5 <sup>th</sup> Year respectively)
4. Raw material	:	Raw Psyllium seeds, Ethylene Oxide and Methyl Bromide
5. Major product outputs	:	Isabgol
6. Total project cost	:	Rs. 25.46 Lakh
Land development, building & Civil Construction	:	Nil
Machinery and equipment's	:	Rs. 16.40 Lakh
Miscellaneous Fixed Assets	:	Rs. 2.50 Lakh
Working capital	:	Rs. 6.56 Lakh
8. Means of Finance		
Subsidy (max 10lakhs)	:	Rs. 6.62 Lakh
Promoter's contribution (min10%)	:	Rs. 2.54 Lakh
Term loan	:	Rs. 10.40 Lakh
Working Capital Requirement	:	Rs. 5.91 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 <sup>st</sup> year	:	Rs. 1.77 Lakh
• 2 <sup>nd</sup> year	:	Rs. 3.46 Lakh
• 3 <sup>rd</sup> year	:	Rs. 5.59 Lakh
• 4 <sup>th</sup> year	:	Rs. 7.47 Lakh
• 5th year	:	Rs. 9.51 Lakh
11. Average DSCR	:	Rs. 3.04
12. Term loan repayment	:	5 Years with 6 months grace period

## 2. ABOUT THE PRODUCT

#### 2.1. PRODUCT INTRODUCTION:

As most people know, psyllium is a herbesious plant. Isabgol, ispaghula, or isabgula are other names for it. Psyllium husk and psyllium powder are both made from this herb. Because the seeds of the ispaghula husk are indigestible, they provide soluble fiber. In the production and export of psyllium husk powder, India dominates the global market. On the global market, it accounts for about 80% of psyllium husk powder. Due to a number of factors, India has the upper hand in the isabgol game.

Isabgol has been used in Ayurvedic medicine for thousands of years. Sweet, astringent, cooling, emollient, mucilaginous, diuretic, laxative, anti-inflammatory, antidysentic, expectorant, aphrodisiac, roborant, and tonic are some of the properties of the seeds. Stomach disorders, tri dosha, burning sensations, habitual constipation, strangury, gastritis, chronic diarrhoea, dysentery, and colonalgia are some of the most common conditions treated with Isabgol husk. Furthermore, it is now used in the food industry to make ice cream, candy, and other confections.

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

Isabgol is one of the most important medicinal plants cultivated for its husk. Mucilage yields are about 25% or more of the total seed yield (by weight). Mucilage of Isabgol seed is often called Psyllium Husk.

India ranks first in Isabgol production (98%) and the only international supplier of seed and husk. Isabgol is the leading foreign exchange producer of the country among medicinal plants (Rs.30 million dollars). It contains a large number of proteins and husk, which produce colloidal mucilage, which is valued for medicinal use and used in medicine systems Ayurvedic, Unani and allopathic.

The herb is grown in Rajasthan, Gujarat, Pradesh, and Haryana every year. India is the leading producer and supplier of seed and husk in the world. The United States is the principal importer of Isabgol seed and husk. This crop is highly demanded export in the USA and Western Europe. Approximately 90% of its production is exported to those countries.

In addition, this crop will not affect the production of successive mountain plants in the winter season and therefore fits well into the crop system. A variety of industrial applications is found in the seed husk. It may be used as a thickener in the food industry because of the remarkable properties of mucilage from seed husk.

It is used in ice-creams and chocolates and other food products as a basic stabilizer. It is also used as a base in cosmetics for sizing purposes. Husk was found in compressed tablets to be a good binder and to disintegrate. When treatment with and subsequently with hot caustic soda, the seed husk produces jelly that replaces agar-agar. Isabgol gum was used for the preparation of dry toothpaste powder and genomic gels. It was also successfully used in petroleum composition. Explosive compositions which are water-resistant can be prepared alone or in admixture, using Isabgol seed gum alone. Seed husk may be used in the case of lactating animals as a certain livestock feed if mixed with guar. The total seed that is used as bird feed is approximately 69% by weight of the DE Husked seed. Gujarat was previously monopolized by the production of Isabgol, with the cultivation of crops in the districts of Banaskantha, Kutch, Mehsana, and Jamnagar. Later, when demand began to raise, the farmers in Rajasthan and other stats which also has an environment and soil for Isabgol similarly beneficial also began cultivating this crop.

### 2.3. RAW MATERIAL DESCRIPTION:

Basic Raw material are as follows:

- Raw Psyllium seeds are the main raw material.
- Ethylene oxide and methyl bromide are necessary for sterilization.

## 3. PROCESS FLOW CHART

**Grain delivery**: The grain is supplied by covered trucks to factories. After arriving at the mill, grain stocks will often have gone through a variety of accumulation processes (farmer, country elevator, terminal elevator, etc.). The number of conveyances carrying grain can vary based on the time of harvesting and delivery.

#### **Pre-Cleaner (Drum Sieve):**

Vibratory pre-cleaning is the first step in the process of removing large and small impurities from farm produce. Pre-cleaning is a cleaning operation that removes impurities such as strokes, paper, pieces of wood etc., and other contaminants before silo storage.

#### **Magnetic separation:**

The Isabgol seed first passes by a magnetic separator that removes ferrous metal particles. It is also necessary to ensure that no metal pieces are in the finished product.

#### **De-stoning**:

The aim of this process is that removes stones and other particles impurities from the given grains.

## **Gravity separation:**

The gravity separator separates products of same size but with difference in specific weight.

## **Colour shorting**

The colour of grains varies depending on the variety. The colour sorter machine is used to sort grains by colour. The goal is to separate grains that are different in colour. In different silos, shorted grains are fed.

#### **De-Husking:**

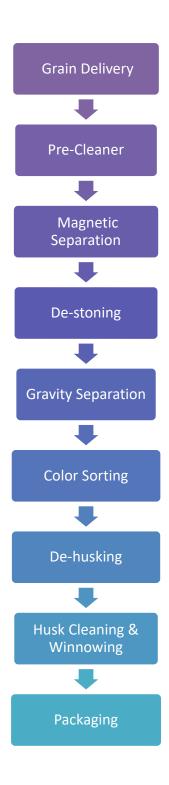
These processes include the milling of intact Psyllium seeds, causing the collision of the husk in circumstances where the husk is broken up and separated from the non-husk part of the Psyllium seed without substantial disruption, as well as the reduction in the size of the non-husk part.

## **Husk Cleaning & Winnowing**

The husk is then passed through gravity separators before customized packaging for further purification. It's called "Winnowing."

#### **Packaging**

A vertical filling and sealing machine is used for retail packing. 100 grams, 250 grams and 1/2 kg packs are generally used for retail marketing.



## 4. ECONOMICS OF THE PROJECT

#### 4.1. BASIS & PRESUMPTIONS

- 1. Production Capacity of Isabgol is 50 kg per hr. First year, Capacity has been taken @ 60%.
- 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 7 days.
- 4. Credit period to Sundry Debtors has been given for 20 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 18 KW.
- 10. Increase in sales and raw material costing has been taken @ 5% & 2% respectively on yearly basis.

# 4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

COMPUTATION OF PRODUCTION OF ISABGOL				
Items to be Manufactured				
Isabgol				
Machine capacity Per hour	50	Kg		
Total working Hours	8			
Machine capacity Per Day	400	Kg		
Working days in a month	25	Days		
Working days per annum	300			
Wastage Considered	5%			
Raw material requirement	120000	Kg		
By Product%	70%			
Final Output per annum after wastage & by-				
product	30000	Kg		
Final Product to be packed in 1 Kg Packet				
Number of Packets per annum	30,000	1 Kg Packet		

Production of Isabgol		
Production	Capacity	Kg
1st year	60%	18,000
2nd year	65%	19,500
3rd year	70%	21,000
4th year	75%	22,500
5th year	80%	24,000

Raw Material Co	ost			
Year Capacity		Rate	Amount	
	Utilisation	(per Kg)	(Rs. in lacs)	
1st year	60%	60.00	43.20	
2nd year	65%	61.00	47.58	
3rd year	70%	62.00	52.08	
4th year	75%	63.00	56.70	
5th year	80%	64.00	61.44	

COMPUTATION OF SALE					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	420	455	490	525
Production	18,000	19,500	21,000	22,500	24,000
Less : Closing Stock	420	455	490	525	560
Net Sale	17,580	19,465	20,965	22,465	23,965
Sale price per packet	380.00	399.00	419.00	440.00	462.00
Sales (in Lacs)	66.80	77.67	87.84	98.85	110.72

<u>COMPUTATION (</u>	OF SALE OF I	BY-PRODUCT			
Particulars	1st year	2nd year	3rd year	4th year	5th year
Production	50,400	54,600	58,800	63,000	67,200
Net Sale	50,400	54,600	58,800	63,000	67,200
Sale price per Kg	18.00	19.00	20.00	21.00	22.00
Sales (in Lacs)	9.07	10.37	11.76	13.23	14.78

## 4.3. PREMISES/INFRASTRUCTURE

The approximate total area required for complete factory setup is 3000-3500 Sq. ft. for smooth production including storage area. It is expected that the premises will be on rental.

# 4.4. MACHINERY & EQUIPMENTS

Machine Name	Description	Machine Image.
Vibrating Pre- Cleaner	It consists of a vibrating sieve that is powered by an exciter, which is powered by an appropriate motor, and it is used to remove the majority of dirt and large impurities from a given grain.	
De-stoner	It's a machine which is used to remove stones from the given grain, widely used in various grain mills in cleaning section.	
Magnetic Separator	It's a type of separator which is used to magnetic impurities from given product using powerful electromagnets, used in wide range of industries for separation.	
Dick separator	The disc separator is the machine that separated particles of different sizes.	

Colour sorting machine	Colour sorting machines are most commonly used in agricultural grain as well as the processing of food products like coffee, nuts, and oil crops. Stones, mouse droppings, and discolored toxic or otherwise unacceptable items are separated by the optical sorter.	
Dehusking machine	The dehusking unit is removing the outer layer of the seed that is the main product of this unit.	
Husk gravity separator	This machine is used to separate the husk from grain after dehusking.	
Packaging machine	A machine for automated weighing and packaging supports the exact weighing and packaging of Isabgol husk. The machine weighs and fills the products with precise measures.	

Unloading Bins	These are large bins designed for unloading of grains & similar product; they are equipped with large rod mess to prevent big impurities from entering system.	
Silos	This Equipment are class of storage Equipment which are specifically designed for dry grain raw material of small granule composition. Usually used to store grains but can also be used to store cement & aggregate.	
Bucket Elevator	A bucket lift is also a grain leg and is a device for vertical transport, often grain materials.	
Material handling and other Equipments	These Equipments are used for material handling. Other equipment's like water pumps, weighing machine, etc are also used.	

Machine	Unit	Rate	Price
Vibrating Pre-Cleaner	1	120000	120000
De-stoner	1	75000	75000
Magnetic Separator	1	115000	115000
Dick separator	1	65000	65000
Colour sorting machine	1	180000	180000
Dehusking machine	1	160000	160000

Husk gravity separator	1	195000	195000
Packaging machine	1	380000	380000
Material handling and other equipment's (Bins,	-	350000	350000
trolley, conveyor, silos, weighing machine,			
bucket elevator etc.)			

**Note:** Total Machinery cost shall be Rs 16.40 lakh including equipment's but excluding GST and Transportation Cost.

## 4.5. MISCELLANEOUS FIXED ASSETS

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

## 4.6. TOTAL COST OF PROJECT

COST OF PROJECT		
	(in Lacs)	
PARTICULARS	Amount	
Land & Building	Owned/Rented	
Plant & Machinery	16.40	
Miscellaneous Assets	2.50	
Working capital	6.56	
Total	25.46	

## 4.7. MEANS OF FINANCE

MEANS OF FINANCE				
PARTICULARS	AMOUNT			
Own Contribution (min 10%)	2.54			
Subsidy @35%(Max. Rs 10 Lac)	6.62			
Term Loan @ 55%	10.40			
Working Capital (Bank Finance)	5.91			
Total	25.46			

**4.8. TERM LOAN:** Term loan of Rs. 10.40 Lakh is required for project cost of Rs. 25.46 Lakh

## 4.9. TERM LOAN REPAYMENT& INTEREST SCHEDULE

	REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance	
1st	Opening Balance							
	1st month	-	10.40	10.40	-	-	10.40	
	2nd month	10.40	_	10.40	0.10	-	10.40	
	3rd month	10.40	-	10.40	0.10	-	10.40	

	4th month	10.40	-	10.40	0.10		10.40
	5th month	10.40	-	10.40	0.10		10.40
	6th month	10.40	-	10.40	0.10		10.40
	7th month	10.40	-	10.40	0.10	0.19	10.20
	8th month	10.20	-	10.20	0.09	0.19	10.01
	9th month	10.01	-	10.01	0.09	0.19	9.82
	10th month	9.82	-	9.82	0.09	0.19	9.63
	11th month	9.63	-	9.63	0.09	0.19	9.43
	12th month	9.43	-	9.43	0.09	0.19	9.24
					1.02	1.16	
2nd	Opening Balance						
	1st month	9.24	-	9.24	0.08	0.19	9.05
	2nd month	9.05	-	9.05	0.08	0.19	8.85
	3rd month	8.85	-	8.85	0.08	0.19	8.66
	4th month	8.66	-	8.66	0.08	0.19	8.47
	5th month	8.47	-	8.47	0.08	0.19	8.28
	6th month	8.28	-	8.28	0.08	0.19	8.08
	7th month	8.08	-	8.08	0.07	0.19	7.89
	8th month	7.89	-	7.89	0.07	0.19	7.70
	9th month	7.70	-	7.70	0.07	0.19	7.51
	10th month	7.51	-	7.51	0.07	0.19	7.31
	11th month	7.31	-	7.31	0.07	0.19	7.12
	12th month	7.12	-	7.12	0.07	0.19	6.93
					0.90	2.31	

3rd	Opening Balance						
	1st month	6.93	-	6.93	0.06	0.19	6.74
	2nd month	6.74	-	6.74	0.06	0.19	6.54
	3rd month	6.54	-	6.54	0.06	0.19	6.35
	4th month	6.35	-	6.35	0.06	0.19	6.16
	5th month	6.16	-	6.16	0.06	0.19	5.97
	6th month	5.97	-	5.97	0.05	0.19	5.77
	7th month	5.77	-	5.77	0.05	0.19	5.58
	8th month	5.58	-	5.58	0.05	0.19	5.39
	9th month	5.39	-	5.39	0.05	0.19	5.20
	10th month	5.20	-	5.20	0.05	0.19	5.00
	11th month	5.00	-	5.00	0.05	0.19	4.81
	12th month	4.81	-	4.81	0.04	0.19	4.62
4th	Opening Balance				0.65	2.31	
401							
	1st month	4.62	-	4.62	0.04	0.19	4.43
	2nd month	4.43	-	4.43	0.04	0.19	4.23
	3rd month	4.23	-	4.23	0.04	0.19	4.04
	4th month	4.04	-	4.04	0.04	0.19	3.85
	5th month	3.85	-	3.85	0.04	0.19	3.66
	6th month	3.66	-	3.66	0.03	0.19	3.46
	7th month	3.46	-	3.46	0.03	0.19	3.27
	8th month	3.27	-	3.27	0.03	0.19	3.08
	9th month 10th month	3.08 2.89	-	3.08	0.03 0.03	0.19 0.19	2.89 2.69

11th month       2.69       -       2.69       0.02       0.19       2.50         12th month       2.50       -       2.50       0.02       0.19       2.31         5th       Opening Balance         1st month       2.31       -       2.31       0.02       0.19       2.12         2nd month       2.12       -       2.12       0.02       0.19       1.92         3rd month       1.92       -       1.92       0.02       0.19       1.73         4th month       1.73       -       1.73       0.02       0.19       1.54         5th month       1.54       -       1.54       0.01       0.19       1.35         6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.77         9th month       0.96       -       0.96       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19 <th></th> <th></th> <th></th> <th></th> <th>2.89</th> <th></th> <th></th> <th></th>					2.89			
5th Opening Balance           1st month         2.31         -         2.31         0.02         0.19         2.12           2nd month         2.12         -         2.12         0.02         0.19         1.92           3rd month         1.92         -         1.92         0.02         0.19         1.73           4th month         1.73         -         1.73         0.02         0.19         1.54           5th month         1.54         -         1.54         0.01         0.19         1.35           6th month         1.35         -         1.35         0.01         0.19         1.15           7th month         1.15         -         1.15         0.01         0.19         0.96           8th month         0.96         -         0.96         0.01         0.19         0.58           10th month         0.58         -         0.58         0.01         0.19         0.38           11th month         0.38         -         0.38         0.00         0.19         0.19		11th month	2.69	-	2.69	0.02	0.19	2.50
5th Opening Balance           1st month         2.31         - 2.31         0.02         0.19         2.12           2nd month         2.12         - 2.12         0.02         0.19         1.92           3rd month         1.92         - 1.92         0.02         0.19         1.73           4th month         1.73         - 1.73         0.02         0.19         1.54           5th month         1.54         - 1.54         0.01         0.19         1.35           6th month         1.35         - 1.35         0.01         0.19         1.15           7th month         1.15         - 1.15         0.01         0.19         0.96           8th month         0.96         - 0.96         0.01         0.19         0.58           10th month         0.58         - 0.58         0.01         0.19         0.38           11th month         0.38         - 0.38         0.00         0.19         0.19		12th month	2.50	-	2.50			2.31
2nd month       2.12       -       2.12       0.02       0.19       1.92         3rd month       1.92       -       1.92       0.02       0.19       1.73         4th month       1.73       -       1.73       0.02       0.19       1.54         5th month       1.54       -       1.54       0.01       0.19       1.35         6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19	5th	Opening Balance				0.39	2.31	
3rd month       1.92       -       1.92       0.02       0.19       1.73         4th month       1.73       -       1.73       0.02       0.19       1.54         5th month       1.54       -       1.54       0.01       0.19       1.35         6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		1st month	2.31	-	2.31	0.02	0.19	2.12
4th month       1.73       -       1.73       0.02       0.19       1.54         5th month       1.54       -       1.54       0.01       0.19       1.35         6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		2nd month	2.12	-	2.12	0.02	0.19	1.92
5th month       1.54       -       1.54       0.01       0.19       1.35         6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		3rd month	1.92	-	1.92	0.02	0.19	1.73
6th month       1.35       -       1.35       0.01       0.19       1.15         7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		4th month	1.73	-	1.73	0.02	0.19	1.54
7th month       1.15       -       1.15       0.01       0.19       0.96         8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		5th month	1.54	-	1.54	0.01	0.19	1.35
8th month       0.96       -       0.96       0.01       0.19       0.77         9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		6th month	1.35	-	1.35	0.01	0.19	1.15
9th month       0.77       -       0.77       0.01       0.19       0.58         10th month       0.58       -       0.58       0.01       0.19       0.38         11th month       0.38       -       0.38       0.00       0.19       0.19		7th month	1.15	-	1.15	0.01	0.19	0.96
10th month 0.58 - 0.58 0.01 0.19 0.38 11th month 0.38 - 0.38 0.00 0.19 0.19		8th month	0.96	-	0.96	0.01	0.19	0.77
11th month 0.38 - 0.38 0.00 0.19 0.19		9th month	0.77	-	0.77	0.01	0.19	0.58
		10th month	0.58	-	0.58	0.01	0.19	0.38
12th month 0.19 - 0.19 0.00 0.19 -		11th month	0.38	-	0.38	0.00	0.19	0.19
12th Hohth 0.17 - 0.17 0.00 0.17 -		12th month	0.19	_	0.19	0.00	0.19	-
0.14 2.31						0.14	2.31	
DOOR TO DOOR 60 MONTHS MORATORIUM			60	MONTHS				
PERIOD 6 MONTHS	10		6	MONTHS				
REPAYMENT PERIOD 54 MONTHS	REPA							

# 4.10. WORKING CAPITAL CALCULATIONS

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Finished Goods					
	1.50	1.68	1.86	2.07	2.29
Raw Material					
	1.44	1.59	1.74	1.89	2.05
Closing Stock	2.94	3.26	3.60	3.96	4.34

COMPUTATION OF WORKING CAPITAL REQUIREMENT						
TRADITIONAL METHOD					(in Lacs)	
Particulars	Amount	Own 1	Margin	Bank Fin	ance	
Finished Goods & Raw Material	2.94					
Less: Creditors	1.44					
Paid stock	1.50	10%	0.15	90%	1.35	
<b>Sundry Debtors</b>	5.06	10%	0.51	90%	4.55	
	6.56		0.66		5.91	
MPBF					5.91	
WORKING CAPITAL LIMIT I	ık)		5.91			
Working Capital Margin					0.66	

# 4.11. SALARY & WAGES

BREAK UP OF LABOUR CHA	RGES		
Particulars	Wages Rs. per Month	No of Employees	Total Salary
		1 0	
Plant Operator	15,000	2	30,000
Supervisor	18,000	1	18,000
Skilled (in thousand rupees)	12,000	2	24,000
Unskilled (in thousand rupees)	7,500	2	15,000
Total salary per month			87,000
Total annual labour charges	(in lacs)		10.44

BREAK UP OF STAFF SALARY			
Particulars	Salary	No of	Total
	Rs. per Month	Employees	Salary
Administrative Staff	6,500	1	6,500
Manager	18,000	1	18,000
Accountant	15,000	1	15,000
Total salary per month			39,500
Total annual Staff charges	(in lacs)		4.74

# **4.12 POWER REQUIREMENT**

<b>Utility Charges (per month</b>		
Particulars	value	Description
Power connection required	18	KWH
consumption per day	144	units
Consumption per month	3,600	units
Rate per Unit	10	Rs.
power Bill per month	36,000	Rs.

# **4.13. DEPRECIATION CALCULATION**

COMPUTATION OF DEPRECIATION					
Description	Plant & Machinery	Miss. Assets	TOTAL		
Rate of Depreciation	15.00%	10.00%			
Opening Balance	-	-	-		
Addition	16.40	2.50	18.90		
Total	16.40	2.50	18.90		
Less : Depreciation	2.46	0.25	2.71		
WDV at end of Year	13.94	2.25	16.19		
Additions During The Year	-	-	-		
Total	13.94	2.25	16.19		
Less: Depreciation	2.09	0.23	2.32		
WDV at end of Year	11.85	2.03	13.87		
Additions During The Year	-	-	-		
Total	11.85	2.03	13.87		
Less: Depreciation	1.78	0.20	1.98		
WDV at end of Year	10.07	1.82	11.89		
Additions During The Year	-	-	-		
Total	10.07	1.82	11.89		
Less: Depreciation	1.51	0.18	1.69		
WDV at end of Year	8.56	1.64	10.20		
Additions During The Year	-	-	-		
Total	8.56	1.64	10.20		
Less: Depreciation	1.28	0.16	1.45		
WDV at end of Year	7.28	1.48	8.75		

# **4.14. REPAIR & MAINTENANCE:** Repair & Maintenance is 3.0% 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 %	60%	65%	70%	75%	80%
<u></u>					
SALES					
Gross Sale					
Isabgol	66.80	77.67	87.84	98.85	110.72
De-husked seed (By-Product)	9.07	10.37	11.76	13.23	14.78
Total	75.88	88.04	99.60	112.08	125.50
COST OF SALES					
Raw Material Consumed	43.20	47.58	52.08	56.70	61.44
Electricity Expenses	4.32	4.97	5.71	6.57	7.23
_					
Depreciation	2.71	2.32	1.98	1.69	1.45
Wages & labour	10.44	12.53	15.03	18.04	21.65
Repair & maintenance	2.28	2.64	2.99	3.36	3.77
Packaging	1.52	1.76	1.99	2.24	2.51
<b>Cost of Production</b>	64.46	71.79	79.79	88.61	98.04
Add: Opening Stock/WIP	-	1.50	1.68	1.86	2.07
Less: Closing Stock /WIP	1.50	1.68	1.86	2.07	2.29
Cost of Sales	62.96	71.62	79.60	88.40	97.82
GROSS PROFIT	12.92	16.42	20.00	23.67	27.68
	17.02%	18.65%	20.08%	21.12%	22.06%
Salary to Staff	4.74	5.69	6.26	6.88	7.57
Interest on Term Loan	1.02	0.90	0.65	0.39	0.14
Interest on working Capital	0.65	0.65	0.65	0.65	0.65
Rent	3.60	3.96	4.36	4.79	5.27
selling & adm exp	1.14	1.76	2.19	2.68	3.14
TOTAL	11.15	12.96	14.10	15.39	16.77
NET PROFIT	1.77	3.46	5.90	8.28	10.92
	2.33%	3.93%	5.93%	7.39%	8.70%
Taxation	-	-	0.31	0.81	1.41
PROFIT (After Tax)	1.77	3.46	5.59	7.47	9.51

# 4.16. BREAK EVEN POINT ANALYSIS

BREAK EVEN POINT ANALYSIS					
Year	I	II	Ш	IV	V
Net Sales & Other Income	75.88	88.04	99.60	112.08	125.50
Less: Op. WIP Goods	-	1.50	1.68	1.86	2.07
Add : Cl. WIP Goods	1.50	1.68	1.86	2.07	2.29
Total Sales	77.38	88.21	99.79	112.28	125.72
Variable & Semi Variable Exp.					
Raw Material Consumed	43.20	47.58	52.08	56.70	61.44
Electricity Exp/Coal Consumption at 85%	3.67	4.22	4.86	5.58	6.14
Wages & Salary at 60%	9.11	10.93	12.77	14.95	17.53
Selling & adminstrative Expenses 80%	0.91	1.41	1.75	2.14	2.51
Interest on working Capital	0.649693	0.649693	0.649693	0.649693	0.649693
Repair & maintenance	2.28	2.64	2.99	3.36	3.77
Packaging	1.52	1.76	1.99	2.24	2.51
Total Variable & Semi Variable Exp	61.33	69.19	77.09	85.63	94.55
Contribution	16.05	19.02	22.70	26.65	31.17
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.65	0.75	0.86	0.99	1.08
Wages & Salary at 40%	6.07	7.29	8.52	9.97	11.69
Interest on Term Loan	1.02	0.90	0.65	0.39	0.14
Depreciation	2.71	2.32	1.98	1.69	1.45
Selling & adminstrative Expenses 20%	0.23	0.35	0.44	0.54	0.63
Rent	3.60	3.96	4.36	4.79	5.27
Total Fixed Expenses	14.28	15.56	16.79	18.37	20.26
Capacity Utilization	60%	65%	70%	75%	80%
OPERATING PROFIT	1.77	3.46	5.90	8.28	10.92
BREAK EVEN POINT	53%	53%	52%	52%	52%
BREAK EVEN SALES	68.86	72.17	73.83	77.39	81.69

# 4.17. PROJECTED BALANCE SHEET

PROJECTED BALANCE SHEET					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
opening balance		8.92	9.88	11.47	13.44
Add:- Own Capital	2.54				
Add:- Retained Profit	1.77	3.46	5.59	7.47	9.51
Less:- Drawings	2.00	2.50	4.00	5.50	7.50
Subsidy/grant	6.62				
Closing Balance	8.92	9.88	11.47	13.44	15.45
Term Loan	9.24	6.93	4.62	2.31	-
Working Capital Limit	5.91	5.91	5.91	5.91	5.91
Sundry Creditors	1.44	1.59	1.74	1.89	2.05
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86
TOTAL:	25.90	24.80	24.33	24.27	24.26
<u>Assets</u>					
Fixed Assets (Gross)	18.90	18.90	18.90	18.90	18.90
Gross Dep.	2.71	5.03	7.01	8.70	10.15
Net Fixed Assets	16.19	13.87	11.89	10.20	8.75
<b>Current Assets</b>					
Sundry Debtors	5.06	5.87	6.64	7.47	8.37
Stock in Hand	2.94	3.26	3.60	3.96	4.34
Cash and Bank	1.71	1.79	2.20	2.64	2.81
TOTAL:	25.90	24.80	24.33	24.27	24.26

# 4.18. CASH FLOW STATEMENT

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
SOURCES OF FUND	<u> </u>	•			
Own Margin	2.54				
Net Profit	1.77	3.46	5.90	8.28	10.92
Depriciation & Exp. W/off	2.71	2.32	1.98	1.69	1.45
Increase in Cash Credit	5.91	-	-	-	-
Increase In Term Loan	10.40	_	-	_	-
Increase in Creditors	1.44	0.15	0.15	0.15	0.16
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	6.62				
TOTAL:	31.77	6.02	8.13	10.25	12.67
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	18.90				
Increase in Stock	2.94	0.32	0.34	0.36	0.38
Increase in Debtors	5.06	0.81	0.77	0.83	0.90
Repayment of Term Loan	1.16	2.31	2.31	2.31	2.31
Drawings	2.00	2.50	4.00	5.50	7.50
Taxation	-	-	0.31	0.81	1.41
TOTAL:	30.06	5.94	7.73	9.81	12.49
Opening Cash & Bank Balance	-	1.71	1.79	2.20	2.64
Add: Surplus	1.71	0.08	0.40	0.44	0.17
Closing Cash & Bank Balance	1.71	1.79	2.20	2.64	2.81

# 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	4.48	5.77	7.57	9.17	10.95
Interest on Term Loan	1.02	0.90	0.65	0.39	0.14
Total	5.50	6.67	8.22	9.56	11.09
<u>REPAYMENT</u>					
Instalment of Term Loan	1.16	2.31	2.31	2.31	2.31
Interest on Term Loan	1.02	0.90	0.65	0.39	0.14
Total	2.18	3.21	2.96	2.70	2.45
DEBT SERVICE COVERAGE RATIO AVERAGE D.S.C.R.	2.53	2.08	2.78	3.54	4.53 3.04