PROJECT REPORT

Of

CASSIA SEEDS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Cassia Seeds Manufacturing unit.

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

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

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PROJECT AT GLANCE

1	**Name of Proprietor/Director**	XXXXXXXX	
2	**Firm Name**	XXXXXXXX	
3	**Registered Address**	XXXXXXXX	
4	**Nature of Activity**	XXXXXXXX	
5	**Category of Applicant**	XXXXXXXX	
6	**Location of Unit**	XXXXXXXX	
7	**Cost of Project**	16.59	Rs. In Lakhs
8	**Means of Finance**		
i)	**Own Contribution**	1.66	Rs. In Lakhs
ii)	**Term Loan**	11.25	Rs. In Lakhs
iii)	**Working Capital**	3.68	Rs. In Lakhs
9	**Debt Service Coverage Ratio**	3.62	
10	**Break Even Point**	38%	
11	**Power Requiremnet**	25	KW
12	**Employment**	10	Persons
13	**Major Raw Materials**	Raw seeds and packaging material	

14 Details of Cost of Project & Means of Finance

Cost of Project **Amount in Lacs**

Particulars	**Amount**
Land and building	Owned/Leased
Plant & Machinery	11.50
Furniture & Fixture	-
Other Misc Assets	1.00
Working Capital Requirement	4.09
Total	**16.59**

Means of Finance

Particulars	**Amount**
Own Contribution	1.66
Term Loan	11.25
Working capital Loan	3.68
Total	**16.59**

1. INTRODUCTION

Cassia Seeds grow in many countries all around the world; this includes India, Pakistan, China, and Bangladesh. It mainly grows in the low-lying coastal area, near riverbanks and wastelands as well as uncultivated fields. This plant is also popularly known as Senna Tora and is found in Central America as well. The ultimate goal of seed processing is to obtain the maximum percentage of pure seed with maximum germination potential. The threshed produce is heterogeneous. Processing brings homogeneity in the produce. This homogeneity helps in obtaining uniformity in the field. Seed processing involves cleaning, dehusking, processing, sorting, and segregating before packing and packaging. The Cassia Tora seeds are obtained from the Cassia plant. The seeds are processed and cleaned, to use for any purpose. The seeds are hard in texture. It is sweet, salty, and bitter in flavor. It contains Chrysophanol, Aurantio-Obtusin, and Vitamin A. Seed processing means improving the quality of harvested seed through a series of operations, viz. cleaning, drying, grading, testing, shelling, treating, bagging, and labelling. Seed processing helps for preventive measures of pests and diseases by drying. It maintains seed viability. It helps improve the quality of the seed by removing the unwanted seed. The general processing sequence for complete cleaning of seeds is Receiving, drying, preconditioning, pre-cleaning, cleaning, separation, and upgrading, treating, weighing, bagging, storage or shipping.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

Potential uses of the cassia seed are it is a great remedy for conjunctivitis and inflammation when it is used with self-heal Spica Prunellae, It promotes sleep & helps to cool down the body., It lowers hypertension, lessens the swelling, discount and pain of muscles by improving blood circulation, It helps in weight loss.

2.2 MANUFACTURING PROCESS

This process can be broken down into the following steps-

Raw material procurement

Seed Processing

Testing

Raw Material Procurement

The raw materials are checked strictly as per established quality standards and requirements. Individual supplier assessment and supplier rating are done depending upon the rejection levels at the incoming quality control stage. Preliminary testing of the facility should be carried out by the facility operator to standardize the equipment performance and correct any deficiencies encountered during the testing. The raw material must also be fresh and should be stored in a well-organized area. After treatment and cooling, the Cassia seed must be placed in new bags. The old bags must be treated or disposed of in a manner that will eliminate pest infestation.

Seed Processing

1) Pre-Cleaning: Removal of external materials like trash, stones, clods which are either in larger size or lighter in weight. No pre-cleaning is required for hand-harvested and winnowed seeds. In this process enough trash is removed to permit bulk storage and processing, Seed fed more evenly through downstream equipment, High moisture, green material is removed decreasing time and cost of drying, Removal of the bulk of trash permits finer top screens to be used resulting in precise separations. Instead of manual pre-cleaning, automatic cleaning machines are more efficient. This process is most commonly done by a scalper. Here, the raw seed is first fed into a pre-cleaner. At this stage, largely sized impurities are removed. To obtain quality seed, it is necessary to clean the seed

obtained from the farm to get rid of inert materials, weed seeds, other crop seeds, other variety seeds, damaged and deteriorated seeds. Different kinds of seeds can be separated when they differ in one or more physical characteristics. Physical characteristics normally used to separate seeds are size, shape, length, weight, color, surface texture, affinity to liquids, electrical conductivity, etc. Before the precleaning drying process can be performed. To avoid any negative effect of high moisture drying will be performed.

2) Cleaning: The second stage of cleaning is carried out with air blasts and vibrating screens. It is essentially the same as scalping but more refined. It is performed mostly by one machine known as an air-screen cleaner. Almost all seeds must be cleaned by an air-screen cleaner before specific specifications can be attempted.
3) Sorting and segregating: The partially cleaned seeds are then passed on to a cleaned cum grader; where the undersized materials and the seeds are segregated. The separation is usually done based on the difference in sizes and weights. The cleaned and the seeds of the right size are sent to the indented cylinder where the broken and short seeds are segregated. The graded seeds are then fed into a specific gravity separator. At this stage, light seeds are removed. Sometimes the process moves on to the next stage if adequate impurities are not found. The processes seeds are finally processed.
4) Drying: Before being exported; the seed is treated and sterilized by intense heat to stop germination.
5) Packing: Now, seeds are sorted packed weighed, and stitched in properly sized packets. The bags of treated seed should be stored in a separate warehouse away from the untreated seed lots to avoid re-infestation or cross-contamination. The treated lots should be properly labeled indicating lot number, size (no of bags/quantity), date of treatment, and signature of the operator.

Testing

Quality Control

Manual Inspection

The preliminary testing should include evaluation of temperature probes (sensors) for accuracy of reading and sensitivity; evaluation of temperature chart for accuracy of recording at specified time intervals. The operator should conduct one empty trial run andthe other loaded with Cassia seed. The data of preliminary testing should be recorded for test treatments to ensure that the facility established will meet the required minimum standards and specifications

3. PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 3000 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.30,000 per month.

- Workshop Area- This area includes the setup and foundation space for all equipment's, work floor area, etc. Total workshop area is approx.1500 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials and finished goods. Total inventory area is approx. 1000 Sqft.
- Office Area – This space includes staff working region, their accommodation space. Total workshop area is approx. 300 Sqft. This may be considered above the ground floor.
- Parking Space, Electric Mounting Space, and Others. This could be approx. 200 Sqft.

Land and building requirement may vary depending on the size of project.

3.2 Plant & Machinery

- **Seed Cleaner (Pre Cleaner):** This machine is used for the pre-cleaning process of seeds. This machine is used to remove external materials like trash, stones, clods which are either larger or lighter in weight.

- **Air Screen Cleaner:** This machine is used for **t**he separation of undesirable material and seeds from desirable seeds in an air screen machine are done based on differences in seed size and weight. This removes the light seed and trash which was not removed by the upper air and the screens.

- **Gravity Seperator:** Gravity Separators use a combination of air, vibration & separation based on density difference. It is used wherever the contamination needs to be separated. Gravity separators are counterbalanced & aerodynamically designed.

- **Seed Dryer:** To remove or reduce moisture content in seed this seed dryer is used.

- **Seed moisture analyzer:** To check moisture content in seed this analyzer can be used.

- **Seed Packing Machine:** This machine is used to pack seeds after processing. This machine will also weigh the seeds.

Machine	Quantity	Price
Seed cleaner	1	2,70,000
Air screen cleaner	1	1,50,000
Gravity separator	1	2,00,000
Dryer	1	1,80,000
Seed moisture analyser	1	50,000
Seed packaging machine	1	3,00,000
TOTAL		**11,50,000**

Note: Total Machinery cost shall be Rs 11.50 lakhs (Approx.) including GST and Transportation Cost.

4 LICENSE & APPROVALS

Basic registration required in this project:

- MSME Udyam registration
- GST registration
- NOC for fire safety board and from Pollution Control Board
- FSSAI License
- Trade License
- Factory License (Optional)
- BIS certification
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Projected Balance Sheet

PROJECTED BALANCE SHEET					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Liabilities					
Capital					
Opening balance		3.31	5.30	7.47	9.74
Add:- Own Capital	1.66				
Add:- Retained Profit	5.05	6.59	8.17	10.57	12.11
Less:- Drawings	3.40	4.60	6.00	8.30	9.90
Closing Balance	**3.31**	**5.30**	**7.47**	**9.74**	**11.95**
Term Loan	10.00	7.50	5.00	2.50	-
Working Capital Limit	3.68	3.68	3.68	3.68	3.68
Sundry Creditors	0.62	0.71	0.80	0.90	1.01
Provisions & Other Liability	0.40	0.48	0.58	0.80	0.96
TOTAL :	**18.01**	**17.67**	**17.53**	**17.62**	**17.60**
Assets					
Fixed Assets (Gross)	12.50	12.50	12.50	12.50	12.50
Gross Dep.	1.88	3.47	4.82	5.97	6.95
Net Fixed Assets	**10.63**	**9.03**	**7.68**	**6.53**	**5.55**
Current Assets					
Sundry Debtors	2.55	3.02	3.42	3.85	4.31
Stock in Hand	2.16	2.47	2.79	3.12	3.48
Cash and Bank	0.18	0.16	0.14	0.12	0.17
Loans & Advances /Other Current Assets	2.50	3.00	3.50	4.00	4.10
TOTAL :	**18.01**	**17.67**	**17.53**	**17.62**	**17.60**

Projected Profitability

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Capacity Utilisation %	**55%**	**60%**	**65%**	**70%**	**75%**
SALES					
Gross Sale					
Cassia Seeds	51.04	60.31	68.46	77.10	86.21
Total	**51.04**	**60.31**	**68.46**	**77.10**	**86.21**
COST OF SALES					
Raw Material Consumed	26.40	30.24	34.32	38.64	43.20
Electricity Expenses	2.64	2.88	3.12	3.36	3.60
Depreciation	1.88	1.59	1.35	1.15	0.98
Wages & labour	6.60	8.05	9.58	10.73	12.02
Repair & maintenance	0.56	0.66	0.68	0.77	0.86
Packaging	0.26	0.30	0.34	0.39	0.43
Cost of Production	38.33	43.73	49.40	55.04	61.09
Add: Opening Stock	-	1.28	1.46	1.65	1.83
Less: Closing Stock	1.28	1.46	1.65	1.83	2.04
Cost of Sales	37.05	43.55	49.21	54.85	60.89
GROSS PROFIT	**13.99**	**16.76**	**19.25**	**22.24**	**25.32**
	27.40%	**27.79%**	**28.12%**	**28.85%**	**29.37%**
Salary to Staff	3.30	3.63	3.70	3.89	4.08
Interest on Term Loan	1.11	0.97	0.70	0.42	0.15
Interest on working Capital	0.41	0.41	0.41	0.41	0.41
Rent	3.60	4.14	4.76	5.48	6.30
Selling & Administrative Exp.	0.51	0.60	0.68	0.77	0.86
TOTAL	**8.92**	**9.75**	**10.25**	**10.96**	**11.79**
NET PROFIT	5.06	7.01	9.00	11.28	13.52
	9.92%	**11.62%**	**13.14%**	**14.63%**	**15.69%**
Taxation	0.01	0.42	0.83	0.71	1.41
PROFIT (After Tax)	5.05	6.59	8.17	10.57	12.11

Projected Cash Flow Statement

PROJECTED CASH FLOW STATEMENT					**(in Lacs)**
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
SOURCES OF FUND					
Own Margin	1.66				
Net Profit	5.06	7.01	9.00	11.28	13.52
Depreciation & Exp. W/off	1.88	1.59	1.35	1.15	0.98
Increase in Cash Credit	3.68	-	-	-	-
Increase In Term Loan	11.25	-	-	-	-
Increase in Creditors	0.62	0.09	0.10	0.10	0.11
Increase in Provisions & Oth labilities	0.40	0.08	0.10	0.22	0.16
	-				
TOTAL :	**24.55**	**8.77**	**10.54**	**12.76**	**14.77**
APPLICATION OF FUND					
Increase in Fixed Assets	12.50				
Increase in Stock	2.16	0.31	0.33	0.33	0.35
Increase in Debtors	2.55	0.46	0.41	0.43	0.46
Repayment of Term Loan	1.25	2.50	2.50	2.50	2.50
Loans & Advances /Other Current Assets	2.50	0.50	0.50	0.50	0.10
Drawings	3.40	4.60	6.00	8.30	9.90
Taxation	0.01	0.42	0.83	0.71	1.41
TOTAL :	**24.37**	**8.79**	**10.56**	**12.78**	**14.72**
Opening Cash & Bank Balance	-	0.18	0.16	0.14	0.12
Add : Surplus	0.18	(0.02)	(0.02)	(0.02)	0.05
Closing Cash & Bank Balance	**0.18**	**0.16**	**0.14**	**0.12**	**0.17**

DSCR

CALCULATION OF D.S.C.R					
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
CASH ACCRUALS	6.93	8.18	9.52	11.72	13.09
Interest on Term Loan	1.11	0.97	0.70	0.42	0.15
Total	8.03	9.16	10.22	12.14	13.24
REPAYMENT					
Instalment of Term Loan	1.25	2.50	2.50	2.50	2.50
Interest on Term Loan	1.11	0.97	0.70	0.42	0.15
Total	2.36	3.47	3.20	2.92	2.65
DEBT SERVICE COVERAGE RATIO	**3.41**	**2.64**	**3.19**	**4.15**	**5.00**
AVERAGE D.S.C.R.					**3.62**

Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest		11.00%
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Closing Balance**
1st	Opening Balance						
	1st month	-	11.25	11.25	-	-	11.25
	2nd month	11.25	-	11.25	0.10	-	11.25
	3rd month	11.25	-	11.25	0.10	-	11.25
	4th month	11.25	-	11.25	0.10		11.25
	5th month	11.25	-	11.25	0.10		11.25
	6th month	11.25	-	11.25	0.10		11.25
	7th month	11.25	-	11.25	0.10	0.21	11.04
	8th month	11.04	-	11.04	0.10	0.21	10.83
	9th month	10.83	-	10.83	0.10	0.21	10.63
	10th month	10.63	-	10.63	0.10	0.21	10.42
	11th month	10.42	-	10.42	0.10	0.21	10.21
	12th month	10.21	-	10.21	0.09	0.21	10.00
					1.11	**1.25**	
2nd	Opening Balance						
	1st month	10.00	-	10.00	0.09	0.21	9.79
	2nd month	9.79	-	9.79	0.09	0.21	9.58
	3rd month	9.58	-	9.58	0.09	0.21	9.37
	4th month	9.37	-	9.37	0.09	0.21	9.17
	5th month	9.17	-	9.17	0.08	0.21	8.96
	6th month	8.96	-	8.96	0.08	0.21	8.75

	7th month	8.75	-	8.75	0.08	0.21	8.54
	8th month	8.54	-	8.54	0.08	0.21	8.33
	9th month	8.33	-	8.33	0.08	0.21	8.12
	10th month	8.12	-	8.12	0.07	0.21	7.92
	11th month	7.92	-	7.92	0.07	0.21	7.71
	12th month	7.71	-	7.71	0.07	0.21	7.50
					0.97	**2.50**	
3rd	Opening Balance						
	1st month	7.50	-	7.50	0.07	0.21	7.29
	2nd month	7.29	-	7.29	0.07	0.21	7.08
	3rd month	7.08	-	7.08	0.06	0.21	6.87
	4th month	6.87	-	6.87	0.06	0.21	6.67
	5th month	6.67	-	6.67	0.06	0.21	6.46
	6th month	6.46	-	6.46	0.06	0.21	6.25
	7th month	6.25	-	6.25	0.06	0.21	6.04
	8th month	6.04	-	6.04	0.06	0.21	5.83
	9th month	5.83	-	5.83	0.05	0.21	5.62
	10th month	5.62	-	5.62	0.05	0.21	5.42
	11th month	5.42	-	5.42	0.05	0.21	5.21
	12th month	5.21	-	5.21	0.05	0.21	5.00
					0.70	**2.50**	
4th	Opening Balance						
	1st month	5.00	-	5.00	0.05	0.21	4.79
	2nd month	4.79	-	4.79	0.04	0.21	4.58
	3rd month	4.58	-	4.58	0.04	0.21	4.38

	4th month	4.38	-	4.38	0.04	0.21	4.17
	5th month	4.17	-	4.17	0.04	0.21	3.96
	6th month	3.96	-	3.96	0.04	0.21	3.75
	7th month	3.75	-	3.75	0.03	0.21	3.54
	8th month	3.54	-	3.54	0.03	0.21	3.33
	9th month	3.33	-	3.33	0.03	0.21	3.13
	10th month	3.13	-	3.13	0.03	0.21	2.92
	11th month	2.92	-	2.92	0.03	0.21	2.71
	12th month	2.71	-	2.71	0.02	0.21	2.50
					0.42	**2.50**	
5th	Opening Balance						
	1st month	2.50	-	2.50	0.02	0.21	2.29
	2nd month	2.29	-	2.29	0.02	0.21	2.08
	3rd month	2.08	-	2.08	0.02	0.21	1.88
	4th month	1.88	-	1.88	0.02	0.21	1.67
	5th month	1.67	-	1.67	0.02	0.21	1.46
	6th month	1.46	-	1.46	0.01	0.21	1.25
	7th month	1.25	-	1.25	0.01	0.21	1.04
	8th month	1.04	-	1.04	0.01	0.21	0.83
	9th month	0.83	-	0.83	0.01	0.21	0.62
	10th month	0.62	-	0.62	0.01	0.21	0.42
	11th month	0.42	-	0.42	0.00	0.21	0.21
	12th month	0.21	-	0.21	0.00	0.21	-
					0.15	**2.50**	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIOD	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

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