

PROJECT REPORT

Of

AMARANTHUS PROCESSING UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Amaranthus Processing Unit.

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

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



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **AMARANTHUS**
- 6 Name of the project / business activity proposed : **AMARANTHUS PROCESSING UNIT**
- 7 Cost of Project : Rs.19.04 Lakhs
- 8 Means of Finance
- Term Loan Rs.13.91 Lakhs
- Own Capital Rs.1.9 Lakhs
- Working Capital Rs.3.23 Lakhs
- 9 Debt Service Coverage Ratio : 2.55
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 31%
- 13 Employment : 10 Persons
- 14 Power Requirement : 18.00 KWH
- 15 Major Raw materials : Harvested Amaranthus Seeds
- 16 Estimated Annual Sales Turnover (Max Capacity) : 90.47 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	14.45
Furniture & Fixtures	1.00
Working Capital	3.59
Total	19.04

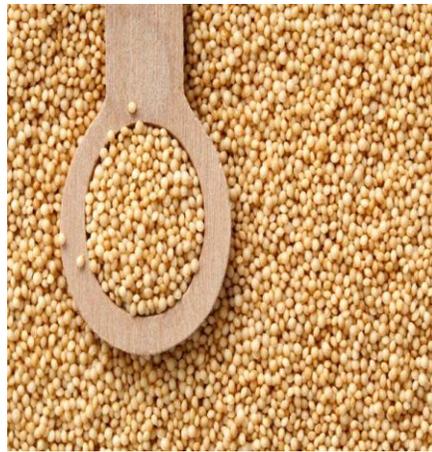
MEANS OF FINANCE

Particulars	Amount
Own Contribution	1.90
Working Capital(Finance)	3.23
Term Loan	13.91
Total	19.04

AMARANTHUS PROCESSING UNIT

Introduction:

Amaranth in Hindi is known as Rajgira. Simply put, Rajgira means raj (royal) & gira (grain). As a matter of fact, amaranth grain meaning in Gujarati is also Rajgira. Moreover, amaranth grain in India is also known as 'Ramdana', meaning God's own grain. Amaranthus is a genus (family Amaranthaceae) consisting of more than 50 species and is a pseudocereal that was domesticated in America over 4000 years ago by the Aztecs and Mayas. The importance of amaranth has resurged in the last years due to agricultural features, since it is a fast-growing cultivar with tolerance to drought conditions, can grow in poor soils, and has important nutritional properties. Moreover, it has minerals, such as calcium, sodium, iron, magnesium, and vitamin E. Polyphenolic compounds, such as phenolic acids and flavonoids, which have been characterized in amaranth grains, which makes it an excellent source of bioactive compounds. Typically, amaranth grain is not eaten raw and suffers a variety of processing methods in order to achieve desired flavor, color, texture, and, sometimes, nutritional and nutraceutical properties.



Uses & Market Potential:

Amaranth seed has a high protein content, which helps muscles heal faster after they've worked out. Recent developments, such as busy and urban lifestyles, the acceptance of on-the-go meals, and rising health consciousness among the working population, are expected to fuel demand for low-cost protein sustenance over the forecast period. Amaranth oil also has anti-inflammatory effects, which may help you avoid allergic

reactions. The global amaranth market size is anticipated to reach USD 13.89 billion by 2025, according to a new report by Grand View Research, Inc., progressing at a CAGR of 11.3% during the forecast period. The presence of rare elements such as squalene, oleic acid, stearic acid, and tocopherols, which help in boosting bone strength, reducing inflammation, repairing tissues, while providing numerous other health benefits, is projected to play a crucial factor in fuelling the demand for amaranth over the forecast years. The global amaranth market is projected to hit USD 13.89 billion by 2025, rising at a CAGR of 11.3 percent over the forecast period. The presence of rare elements such as squalene, oleic acid, stearic acid, and tocopherols, which aid in bone strength, inflammation reduction, tissue repair, and a variety of other health benefits, is expected to drive demand for amaranth in the coming years.

Product:

AMARANTHUS

Raw Material:

The only raw material that is used in Amaranthus Processing unit is Harvested Amaranthus seeds.

Manufacturing Process:

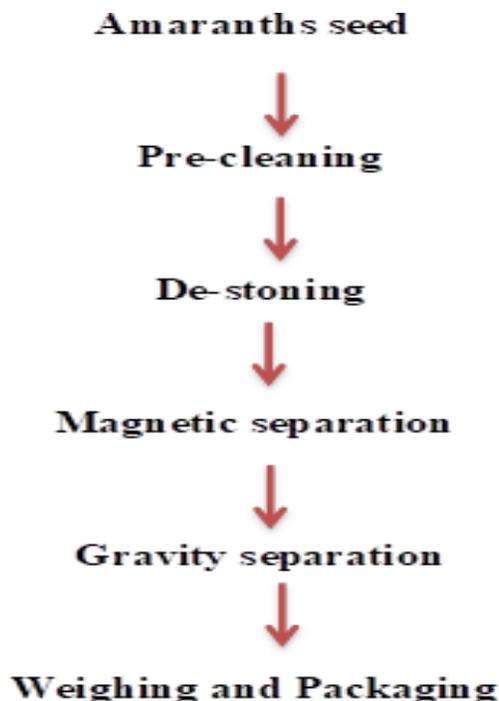


Fig. 1 – Process Flowchart

Area:

The approximate total area required for construction of shed is 2500-3500 Sq. ft. for smooth production including storage area.

Cost of Machines:

S No.	Machine	Price (INR)
1.	Seed Cleaning Machine	3,50,000/-
2.	Seed De-stoner Machine	1,50,000/-
3.	Magnetic Separator	1,60,000/-
4.	Gravity separator	1,25,000/-
8.	Packaging machine	2,60,000/-
9.	Material handling and other equipment's (Bins, trolley, conveyor, silos, weighing machine, bucket elevator etc.)	4,00,000/-
	Total	14,45,000/-

Power Requirement- The estimated Power requirement is taken at 18 KWH.

Manpower Requirement- Following manpower is required:

- Skilled/unskilled worker-4
- Helper- 2
- Machine Operator- 2
- Sales Personal and Accountant- 2

FINANCIALS

<u>PROJECTED BALANCE SHEET</u>					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
<u>Capital Account</u>					
Opening Balance	-	2.07	3.33	5.23	7.44
Add: Additions	1.90	-	-	-	-
Add: Net Profit	3.27	5.06	7.00	8.31	10.18
Less: Drawings	3.10	3.80	5.10	6.10	7.70
Closing Balance	2.07	3.33	5.23	7.44	9.92
CC Limit	3.23	3.23	3.23	3.23	3.23
Term Loan	12.36	9.27	6.18	3.09	-
Sundry Creditors	0.84	0.97	1.11	1.25	1.40
TOTAL :	18.50	16.80	15.75	15.01	14.56
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	15.45	15.45	15.45	15.45	15.45
Gross Dep.	2.27	4.20	5.85	7.25	8.45
Net Fixed Assets	13.18	11.25	9.60	8.20	7.00
Current Assets					
Sundry Debtors	1.76	2.10	2.39	2.70	3.02
Stock in Hand	2.66	3.08	3.51	3.96	4.43
Cash and Bank	0.89	0.37	0.24	0.16	0.11
TOTAL :	18.50	16.80	15.75	15.01	14.56
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	52.90	62.95	71.76	80.93	90.47
Total (A)	52.90	62.95	71.76	80.93	90.47
<u>B) COST OF SALES</u>					
Raw Material Consumed	25.20	29.16	33.30	37.62	42.12
Electricity Expenses	1.61	1.81	2.01	2.22	2.42
Repair & Maintenance	1.59	1.89	2.15	2.43	2.71
Labour & Wages	10.08	11.49	13.21	14.93	16.72
Depreciation	2.27	1.93	1.65	1.40	1.20
Cost of Production	40.75	46.28	52.33	58.60	65.17
Add: Opening Stock /WIP	-	1.82	2.11	2.40	2.71
Less: Closing Stock /WIP	1.82	2.11	2.40	2.71	3.02
Cost of Sales (B)	38.92	46.00	52.03	58.29	64.85
C) GROSS PROFIT (A-B)	13.97	16.94	19.73	22.64	25.61
	26.42%	26.92%	27.49%	27.97%	28.31%
D) Bank Interest i) (Term Loan)	1.51	1.23	0.89	0.55	0.21
ii) Interest On Working Capital	0.36	0.36	0.36	0.36	0.36
E) Salary to Staff	5.67	6.52	7.17	7.53	7.91
F) Selling & Adm Expenses Exp.	3.17	3.78	4.31	4.86	5.43
G) TOTAL (D+E+F)	10.71	11.88	12.73	13.29	13.90
H) NET PROFIT	3.27	5.06	7.00	9.34	11.71
	6.2%	8.0%	9.8%	11.5%	12.9%
I) Taxation	-	-	-	1.03	1.53
J) PROFIT (After Tax)	3.27	5.06	7.00	8.31	10.18

<u>PROJECTED CASH FLOW STATEMENT</u>					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	1.90	-			
Reserve & Surplus	3.27	5.06	7.00	9.34	11.71
Depreciation & Exp. W/off	2.27	1.93	1.65	1.40	1.20
Increase In Cash Credit	3.23				
Increase In Term Loan	13.91	-	-	-	-
Increase in Creditors	0.84	0.13	0.14	0.14	0.15
TOTAL :	25.41	7.12	8.78	10.89	13.06
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	15.45	-	-	-	-
Increase in Stock	2.66	0.41	0.43	0.45	0.47
Increase in Debtors	1.76	0.34	0.29	0.31	0.32
Repayment of Term Loan	1.55	3.09	3.09	3.09	3.09
Taxation	-	-	-	1.03	1.53
Drawings	3.10	3.80	5.10	6.10	7.70
TOTAL :	24.52	7.64	8.92	10.98	13.10
Opening Cash & Bank Balance	-	0.89	0.37	0.24	0.16
Add : Surplus	0.89	- 0.52	- 0.13	- 0.09	- 0.04
Closing Cash & Bank Balance	0.89	0.37	0.24	0.16	0.11

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(10 Days requirement)	1.82	2.11	2.40	2.71	3.02
<u>Raw Material</u>					
(10 Days requirement)	0.84	0.97	1.11	1.25	1.40
Closing Stock	2.66	3.08	3.51	3.96	4.43

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	2.66		
Less:			
Sundry Creditors	0.84		
Paid Stock	1.82	0.18	1.64
Sundry Debtors	1.76	0.18	1.59
Working Capital Requirement			3.23
Margin			0.36
MPBF			3.23
Working Capital Demand			3.23

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	13.91	13.91	0.38	-	13.91
	Iind Quarter	13.91	-	13.91	0.38	-	13.91
	IIIrd Quarter	13.91	-	13.91	0.38	0.77	13.13
	Ivth Quarter	13.13	-	13.13	0.36	0.77	12.36
						1.51	1.55
II	Opening Balance						
	Ist Quarter	12.36	-	12.36	0.34	0.77	11.59
	Iind Quarter	11.59	-	11.59	0.32	0.77	10.82
	IIIrd Quarter	10.82	-	10.82	0.30	0.77	10.04
	Ivth Quarter	10.04		10.04	0.28	0.77	9.27
						1.23	3.09
III	Opening Balance						
	Ist Quarter	9.27	-	9.27	0.25	0.77	8.50
	Iind Quarter	8.50	-	8.50	0.23	0.77	7.73
	IIIrd Quarter	7.73	-	7.73	0.21	0.77	6.95
	Ivth Quarter	6.95		6.95	0.19	0.77	6.18
						0.89	3.09
IV	Opening Balance						
	Ist Quarter	6.18	-	6.18	0.17	0.77	5.41
	Iind Quarter	5.41	-	5.41	0.15	0.77	4.64
	IIIrd Quarter	4.64	-	4.64	0.13	0.77	3.86
	Ivth Quarter	3.86		3.86	0.11	0.77	3.09
						0.55	3.09
V	Opening Balance						
	Ist Quarter	3.09	-	3.09	0.08	0.77	2.32
	Iind Quarter	2.32	-	2.32	0.06	0.77	1.55
	IIIrd Quarter	1.55	-	1.55	0.04	0.77	0.77
	Ivth Quarter	0.77		0.77	0.02	0.77	- 0.00
						0.21	3.09
Door to Door Period		60	Months				
Moratorium Period		6	Months				
Repayment Period		54	Months				

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	5.53	6.99	8.65	9.72	11.38
Interest on Term Loan	1.51	1.23	0.89	0.55	0.21
Total	7.04	8.22	9.54	10.27	11.59
<u>REPAYMENT</u>					
Repayment of Term Loan	1.55	3.09	3.09	3.09	3.09
Interest on Term Loan	1.51	1.23	0.89	0.55	0.21
Total	3.05	4.32	3.98	3.64	3.30
DEBT SERVICE COVERAGE RATIO	2.31	1.90	2.40	2.82	3.51
AVERAGE D.S.C.R.			2.55		

Assumptions:

- 1.** Production Capacity of Amaranthus is 600 Kg per day. First year, Capacity has been taken @ 40%.
- 2.** Working shift of 10 hours per day has been considered.
- 3.** Raw Material stock and Finished goods closing stock has been taken for 10 days.
- 4.** Credit period to Sundry Debtors has been given for 10 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 KWH.
- 10.** Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years

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