PROJECT REPORT

Of

AMARANTHUS SEED

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.]

SAMADHAN
Nurturing Dreams - Innovative Solutions

Lucknow Office: Sidhivinayak Building , 27/1/B, Gokhlley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training Centre, Gandhi Darshan Rajghat, New Delhi 110002

Email : info@udyami.org.in
Contact : +91 7526000333, 444, 555

PROJECT AT A GLANCE

1	Name of the Entreprenuer		xxxxxxxxxx
2	Constitution (legal Status)	:	xxxxxxxxxx
3	Father / Spouse Name		xxxxxxxxxxxx
4	Unit Address	:	xxxxxxxxxxxxxxxxxxxxxx District : xxxxxxx Pin: xxxxxxx State: xxxxx Mobile xxxxxxx
5	Product and By Product	:	**AMARANTHUS SEED**
6	Name of the project / business activity proposed :		**AMARANTHUS PROCESSING UNIT**
7	Cost of Project	:	Rs.23.54 Lakhs
8	Means of Finance Term Loan Own Capital Working Capital		 Rs.13.65 Lakhs Rs.2.35 Lakhs Rs.7.53 Lakhs
9	Debt Service Coverage Ratio	:	2.66
10	Pay Back Period	:	5 Years
11	Project Implementation Period	:	5-6 Months
12	Break Even Point	:	31%
13	Employment	:	15 Persons
14	Power Requirement	:	20.00 HP
15	Major Raw materials	:	Harvested Amaranthus seed and Packing Material
16	Estimated Annual Sales Turnover (Max Capacity)	:	192.17 Lakhs
17	Detailed Cost of Project & Means of Finance		

COST OF PROJECT

(Rs. In Lakhs)

Particulars	**Amount**
Land	Own/Rented
Plant & Machinery	14.37
Furniture & Fixtures	0.80
Working Capital	8.37
Total	**23.54**

MEANS OF FINANCE

Particulars	**Amount**
Own Contribution	2.35
Working Capital(Finance)	7.53
Term Loan	13.65
Total	**23.54**

AMARANTHUS PROCESSING UNIT

Introduction:

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. The different processing methods considered in this chapter such as cooking in water, toasting, fermentation, germination, or extrusion affect the nutritional and nutraceutical characteristics that have beneficial effects on human health. The health benefits of amaranth come from nutrients and, in part, through the antioxidant characteristic of the phenolic compounds present in the grain, so that changes and variation in the composition and concentration of Nutrients and non-nutrient could indicate the type of amaranth grain processing that can preserve its nutritional and nutraceutical characteristics. 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.

Uses & Market Potential:

- There are various ways to use amaranth as a part of the daily diet:
- Boil whole amaranth grains can be used to make porridge.
- Pop dried amaranth can be used as popcorn and it is eaten as a snack.
- Popped amaranth can be also used as salads or in soups.

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. Amaranth by-products are used in nutritional supplements, cosmetics, pharmaceuticals, and food additives, among other fields. Over the forecast period, the increasing geriatric population, for which the substance is advantageous in a variety of medical conditions, is expected to drive up demand for amaranth in the pharmaceutical industry. The high concentration of proteins, enzymes, and phytosterols in amaranth seeds and leaves makes them one of the most sought-after grains on the market. Aside from the high protein content, amaranth seeds contain various peptides that are believed

to inhibit free radical activity and suppress inflammation. 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 CAGRof 11.3% during the forecast period.

Product:

Amaranthus Seed

Raw Material:

Basic raw materials are harvested amaranthus seed and packing material

Manufacturing Process:

- Raw material procurement
- Pre-Cleaning
- De-Stoning
- Magnetic Separation
- Gravity Separation
- Weighing & Packaging

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1200-1800Sqft.

Cost of Machines:

S.N.	Description	Unit	Rate	Amount
1	Gravity Separator	1	260000	260000
2	Vibro type sieves with two jail	1	185000	185000
3	Vibro type sieves with three jail	1	210000	210000
4	Aspiration System	1	45000	45000
5	Cyclone	1	32000	32000
6	Blower	1	45000	45000
7	Rotary Air Clock	1	30000	30000
8	Vibro type Destoner	1	310000	310000
9	Elevator	3	100000	300000
10	Packaging Machine	1	20000	20000
	Total Amount			**14,37,000**

Power Requirement- The estimated Power requirement is taken at 20 HP.

Manpower Requirement– Following manpower is required:

- Machine operator-3
- Skilled/unskilled worker-4
- Helper-5
- Manager cum Accountant-1
- Sales Personnel-2

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	3.18	4.97	7.57	10.92
Add: Additions	2.35	-	-	-	-
Add: Net Profit	4.43	5.59	6.80	8.34	9.98
Less: Drawings	3.60	3.80	4.20	5.00	6.00
Closing Balance	3.18	4.97	7.57	10.92	14.90
CC Limit	7.53	7.53	7.53	7.53	7.53
Term Loan	12.14	9.10	6.07	3.03	-
Sundry Creditors	3.54	4.13	4.74	5.37	6.03
TOTAL :	**26.39**	**25.74**	**25.91**	**26.85**	**28.46**
APPLICATION OF FUND					
Fixed Assets (Gross)	15.17	15.17	15.17	15.17	15.17
Gross Dep.	2.24	4.14	5.76	7.14	8.32
Net Fixed Assets	12.93	11.03	9.41	8.03	6.85
Current Assets					
Sundry Debtors	4.89	6.01	6.95	7.94	8.97
Stock in Hand	7.02	8.20	9.44	10.69	11.97
Cash and Bank	1.55	0.49	0.12	0.20	0.67
TOTAL :	**26.39**	**25.74**	**25.91**	**26.85**	**28.46**
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	104.74	128.79	149.02	170.15	192.17
Total (A)	**104.74**	**128.79**	**149.02**	**170.15**	**192.17**
B) COST OF SALES					
Raw Material Consumed	70.88	82.62	94.81	107.46	120.58
Elecricity Expenses	1.57	1.79	2.01	2.24	2.46
Repair & Maintenance	2.09	2.58	2.98	3.40	3.84
Labour & Wages	16.44	20.06	24.07	27.68	31.01
Depreciation	2.24	1.90	1.62	1.38	1.18
Cost of Production	93.21	108.95	125.50	142.17	159.07
Add: Opening Stock /WIP	-	4.66	5.45	6.27	7.11
Less: Closing Stock /WIP	4.66	5.45	6.27	7.11	7.95
Cost of Sales (B)	88.55	108.16	124.67	141.33	158.23
C) GROSS PROFIT (A-B)	16.18	20.63	24.35	28.81	33.95
	15.45%	**16.02%**	**16.34%**	**16.93%**	**17.67%**
D) Bank Interest i) (Term Loan)	1.48	1.21	0.88	0.54	0.21
ii) Interest On Working Capital	0.83	0.83	0.83	0.83	0.83
E) Salary to Staff	7.56	9.07	10.43	12.10	13.55
F) Selling & Adm Expenses Exp.	1.89	3.61	4.77	5.96	7.69
G) TOTAL (D+E+F)	**11.75**	**14.72**	**16.91**	**19.43**	**22.28**
H) NET PROFIT	4.43	5.91	7.44	9.38	11.67
	4.2%	**4.6%**	**5.0%**	**5.5%**	**6.1%**
I) Taxation	-	0.32	0.64	1.04	1.69
J) PROFIT (After Tax)	4.43	5.59	6.80	8.34	9.98

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	2.35	-	-	-	-
Reserve & Surplus	4.43	5.91	7.44	9.38	11.67
Depriciation & Exp. W/off	2.24	1.90	1.62	1.38	1.18
Increase In Cash Credit	7.53	-	-	-	-
Increase In Term Loan	13.65	-	-	-	-
Increase in Creditors	3.54	0.59	0.61	0.63	0.66
TOTAL :	**33.75**	**8.40**	**9.67**	**11.40**	**13.50**
APPLICATION OF FUND					
Increase in Fixed Assets	15.17	-	-	-	-
Increase in Stock	7.02	1.18	1.23	1.25	1.28
Increase in Debtors	4.89	1.12	0.94	0.99	1.03
Repayment of Term Loan	1.52	3.03	3.03	3.03	3.03
Taxation	-	0.32	0.64	1.04	1.69
Drawings	3.60	3.80	4.20	5.00	6.00
TOTAL :	**32.20**	**9.45**	**10.05**	**11.32**	**13.04**
Opening Cash & Bank Balance	-	1.55	0.49	0.12	0.20
Add : Surplus	1.55	- 1.05	- 0.38	0.08	0.47
Closing Cash & Bank Balance	**1.55**	**0.49**	**0.12**	**0.20**	**0.67**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(15 Days requirement)	4.66	5.45	6.27	7.11	7.95
Raw Material					
(10 Days requirement)	2.36	2.75	3.16	3.58	4.02
Closing Stock	**7.02**	**8.20**	**9.44**	**10.69**	**11.97**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	7.02		
Less:			
Sundry Creditors	3.54		
Paid Stock	**3.48**	**0.35**	**3.13**
Sundry Debtors	4.89	0.49	4.40
Working Capital Requirement			**7.53**
Margin			0.84
MPBF			**7.53**
Working Capital Demand			**7.53**

REPAYMENT SCHEDULE OF TERM LOAN 11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
I	Opening Balance						
	Ist Quarter	-	13.65	13.65	0.38	-	13.65
	Iind Quarter	13.65	-	13.65	0.38	-	13.65
	IIIrd Quarter	13.65	-	13.65	0.38	0.76	12.89
	Ivth Quarter	12.89	-	12.89	0.35	0.76	12.14
					1.48	1.52	
II	Opening Balance						
	Ist Quarter	12.14	-	12.14	0.33	0.76	11.38
	Iind Quarter	11.38	-	11.38	0.31	0.76	10.62
	IIIrd Quarter	10.62	-	10.62	0.29	0.76	9.86
	Ivth Quarter	9.86		9.86	0.27	0.76	9.10
					1.21	3.03	
III	Opening Balance						
	Ist Quarter	9.10	-	9.10	0.25	0.76	8.34
	Iind Quarter	8.34	-	8.34	0.23	0.76	7.59
	IIIrd Quarter	7.59	-	7.59	0.21	0.76	6.83
	Ivth Quarter	6.83		6.83	0.19	0.76	6.07
					0.88	3.03	
IV	Opening Balance						
	Ist Quarter	6.07	-	6.07	0.17	0.76	5.31
	Iind Quarter	5.31	-	5.31	0.15	0.76	4.55
	IIIrd Quarter	4.55	-	4.55	0.13	0.76	3.79
	Ivth Quarter	3.79		3.79	0.10	0.76	3.03
					0.54	3.03	
V	Opening Balance						
	Ist Quarter	3.03	-	3.03	0.08	0.76	2.28
	Iind Quarter	2.28	-	2.28	0.06	0.76	1.52
	IIIrd Quarter	1.52	-	1.52	0.04	0.76	0.76
	Ivth Quarter	0.76		0.76	0.02	0.76	0.00
					0.21	3.03	

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
CASH ACCRUALS	6.66	7.49	8.42	9.72	11.16
Interest on Term Loan	1.48	1.21	0.88	0.54	0.21
Total	8.15	8.70	9.30	10.27	11.36
REPAYMENT					
Repayment of Term Loan	1.52	3.03	3.03	3.03	3.03
Interest on Term Loan	1.48	1.21	0.88	0.54	0.21
Total	3.00	4.24	3.91	3.58	3.24
DEBT SERVICE COVERAGE RATIO	**2.72**	**2.05**	**2.38**	**2.87**	**3.50**
AVERAGE D.S.C.R.			**2.66**		

Assumptions:

1. Production Capacity of Amaranthus Processing unit is taken at 1500 KG per day. First year, Capacity has been taken @ 35%.

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 and 15 days respectively.

4. Credit period to Sundry Debtors has been given for 14 days.

5. Credit period by the Sundry Creditors has been provided for 15 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 20 HP.

10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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