

# PROJECT REPORT

Of

# CHICORY POWDER

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Chicory Powder Making 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.]



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

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

**Email :** [info@udyami.org.in](mailto:info@udyami.org.in)  
**Contact :** +91 7526000333, 444, 555

**PROJECT AT A GLANCE**

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **CHICORY POWDER**
- 6 Name of the project / business activity proposed : **CHICORY POWDER UNIT**
- 7 Cost of Project : Rs.22.82 Lakhs
- 8 Means of Finance
- Term Loan Rs.15.75 Lakhs
- Own Capital Rs.2.28 Lakhs
- Working Capital Rs.4.79 Lakhs
- 9 Debt Service Coverage Ratio : 2.27
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 30%
- 13 Employment : 18 Persons
- 14 Power Requirement : 20.00 HP
- 15 Major Raw materials : Chicory Roots
- 16 Estimated Annual Sales Turnover (Max Capacity) : 121.79 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.50
Furniture & Fixtures	1.00
Working Capital	5.32
<b>Total</b>	<b>22.82</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	2.28
Working Capital(Finance)	4.79
Term Loan	15.75
<b>Total</b>	<b>22.82</b>

# **CHICORY POWDER MAKING UNIT**

## **Introduction:**

Chicory (*Cichorium intybus L.*) known as “Succory”, “Witloof” or “Hendibeh”. The name derived from Greek and Latin. Cichorium means field and intybus is Greek word means “to cut”. It is an edible consumed in Arab countries, Lebanon and different parts of world. Chicory is woody perennial herb having height of 1m with roots up to 75cm and large basal leaves. Chicory consists of flower of blue colour, roots and wild green leaves. chicory Roots and its leaves are edible part of plant. Leaves are excellent source of dietary fibres, minerals, vitamins, antioxidant, phytochemical and contribute to prevention of disease such as diabetes, cardiovascular and gastrointestinal. The roots of chicory are used in dried and roasted form containing inulin up to 40% which has impact on blood sugar and suitable for diabetic patients. The roots of chicory are blended with coffee to add flavour whereas leaves are used in salad and vegetable dishes. Chicory is used for production of inulin on industrial scale.

Chicory has long therapeutic uses, different part of plant used to treat various ailments. It is used to treat digestive problems, loss of appetite, liver diseases, mild laxative and renal functions.

## **Uses & Market Potential:**

Chicory is a coffee-based beverage that is prepared using roasted and ground chicory roots with or without coffee. It is widely used in food industry, cosmetics industry and pharmaceutical industry.

Now days more and more people are becoming health conscious as there is an increase in the risk of lifestyle diseases. It was discovered that the root of *C. intybus* contained inulin up to 40%, which has a minor impact on blood sugar and thus is suitable for Sugar patients. Up till now, Chicory is developed for the production of inulin on an industrial scale. Higher consumption of chicory product is beneficial for diabetic patients as it has high inulin and reduces risk of diabetes.

Chicory coffee is increasingly used in various cosmetic products like moisturizers, tanning cream, soaps, conditioners, oils, hair mask, face mask, shampoos etc. which cause rapid growth of chicory powder. The paste of chicory leaves and paste can be directly applied to the skin in case of swelling and inflammation.

Due to the pandemic, there has been increase in ready to mix and ready to drink beverages. This largely includes drinks such as juices, coffee, and flavoured milks. To serve to this increased demand, the coffee manufacturers increased their production size. Due to this reason consumption of chicory has increased simultaneously.

The important factor which has led to the development and growth of the global chicory Market is regional integration and a free trade agreement. Free trade has helped in the integration of supply chain, resulting in the boosting of trade activities between countries, and this has benefited the chicory manufacturers extensively as they can now access other countries, subsequently driving the growth of the global chicory market.

Another factor which is important for the growth of this Market is the emergence of modern retail and the growing trend of food court and speciality stores in malls. Consumers have an easier access to products that contain chicory ingredients such as prebiotics food and supermarket and malls as they come to these places for shopping offer entertainment activities and also end up purchasing different products.

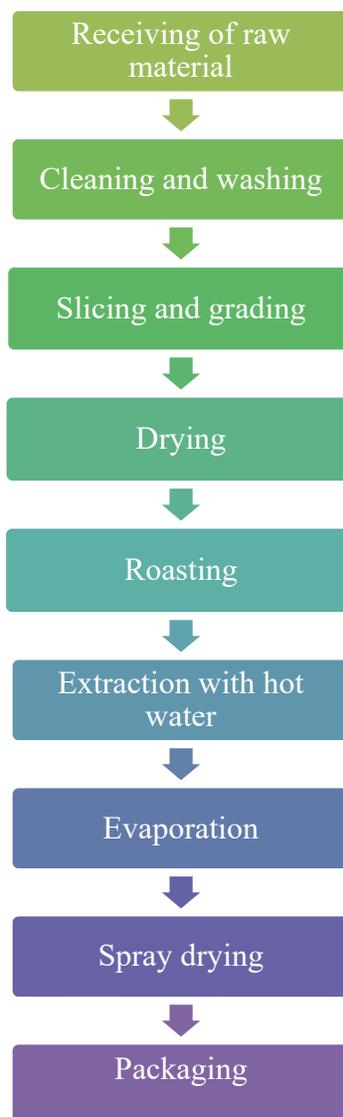
## **Product:**

Chicory Powder

## **Raw Material:**

The only raw material required for chicory powder production is chicory roots.

## **Manufacturing Process:**



## **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:**

<b>Machine</b>	<b>Unit</b>	<b>Rate</b>	<b>Price</b>
Vibrating separator	1	75000	75000
Washing unit	1	65000	65000
Chicory grinding machine	1	274000	274000
Tray dryer	1	246000	246000
Roasting machine	1	140000	140000
Single effect evaporator	1	150000	150000
Spray dryer	1	370000	370000
Packaging machine	1	180000	180000
Material handling and other equipment's	-	150000	150000
<b>Total Amount</b>			<b>1650000</b>

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

**Manpower Requirement-** Following manpower is required:

- Machine operator-4
- Skilled/unskilled worker-5
- Helper-6
- Manager cum Accountant-1
- Sales Personnel-2

# FINANCIALS

**PROJECTED BALANCE SHEET**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
<b><u>Capital Account</u></b>					
Opening Balance	-	2.77	4.58	6.93	10.30
Add: Additions	2.28	-	-	-	-
Add: Net Profit	2.99	5.00	6.35	8.38	9.70
Less: Drawings	2.50	3.20	4.00	5.00	6.50
<b>Closing Balance</b>	<b>2.77</b>	<b>4.58</b>	<b>6.93</b>	<b>10.30</b>	<b>13.51</b>
CC Limit	4.79	4.79	4.79	4.79	4.79
Term Loan	14.00	10.50	7.00	3.50	-
Sundry Creditors	1.08	1.29	1.50	1.72	1.95
<b>TOTAL :</b>	<b>22.64</b>	<b>21.15</b>	<b>20.21</b>	<b>20.31</b>	<b>20.24</b>
<b><u>APPLICATION OF FUND</u></b>					
<b>Fixed Assets ( Gross)</b>	<b>17.50</b>	<b>17.50</b>	<b>17.50</b>	<b>17.50</b>	<b>17.50</b>
Gross Dep.	2.58	4.77	6.64	8.23	9.59
Net Fixed Assets	14.93	12.73	10.86	9.27	7.91
<b>Current Assets</b>					
Sundry Debtors	2.87	3.62	4.27	4.96	5.68
Stock in Hand	3.53	4.19	4.90	5.61	6.37
Cash and Bank	1.32	0.61	0.18	0.47	0.28
<b>TOTAL :</b>	<b>22.64</b>	<b>21.15</b>	<b>20.21</b>	<b>20.31</b>	<b>20.24</b>

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**PROJECTED PROFITABILITY STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>A) SALES</u></b>					
Gross Sale	61.56	77.56	91.58	106.33	121.79
<b>Total (A)</b>	<b>61.56</b>	<b>77.56</b>	<b>91.58</b>	<b>106.33</b>	<b>121.79</b>
<b><u>B) COST OF SALES</u></b>					
Raw Material Consumed	21.60	25.70	29.97	34.38	38.97
Electricity Expenses	1.34	1.57	1.79	2.01	2.24
Repair & Maintenance	1.54	1.94	2.29	2.66	3.04
Labour & Wages	21.92	26.75	32.10	37.23	42.82
Depreciation	2.58	2.19	1.87	1.59	1.36
<b>Cost of Production</b>	<b>48.98</b>	<b>58.15</b>	<b>68.01</b>	<b>77.88</b>	<b>88.43</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>2.45</b>	<b>2.91</b>	<b>3.40</b>	<b>3.89</b>
<b>Less: Closing Stock /WIP</b>	<b>2.45</b>	<b>2.91</b>	<b>3.40</b>	<b>3.89</b>	<b>4.42</b>
Cost of Sales (B)	46.53	57.69	67.52	77.39	87.90
<b>C) GROSS PROFIT (A-B)</b>	<b>15.03</b>	<b>19.87</b>	<b>24.06</b>	<b>28.94</b>	<b>33.89</b>
	<b>24.41%</b>	<b>25.62%</b>	<b>26.28%</b>	<b>27.22%</b>	<b>27.83%</b>
D) Bank Interest i) (Term Loan )	1.71	1.40	1.01	0.63	0.24
ii) Interest On Working Capital	0.53	0.53	0.53	0.53	0.53
E) Salary to Staff	8.69	10.61	12.73	14.64	16.98
F) Selling & Adm Expenses Exp.	1.11	2.17	2.93	3.72	4.87
<b>G) TOTAL (D+E+F)</b>	<b>12.04</b>	<b>14.70</b>	<b>17.20</b>	<b>19.51</b>	<b>22.62</b>
<b>H) NET PROFIT</b>	<b>2.99</b>	<b>5.17</b>	<b>6.87</b>	<b>9.43</b>	<b>11.27</b>
	<b>4.9%</b>	<b>6.7%</b>	<b>7.5%</b>	<b>8.9%</b>	<b>9.3%</b>
I) Taxation	-	0.17	0.52	1.05	1.57
<b>J) PROFIT (After Tax)</b>	<b>2.99</b>	<b>5.00</b>	<b>6.35</b>	<b>8.38</b>	<b>9.70</b>

**PROJECTED CASH FLOW STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
Own Contribution	2.28	-	-	-	-
Reserve & Surplus	2.99	5.17	6.87	9.43	11.27
Depreciation & Exp. W/off	2.58	2.19	1.87	1.59	1.36
Increase In Cash Credit	4.79	-	-	-	-
Increase In Term Loan	15.75	-	-	-	-
Increase in Creditors	1.08	0.21	0.21	0.22	0.23
<b>TOTAL :</b>	<b>29.47</b>	<b>7.57</b>	<b>8.95</b>	<b>11.24</b>	<b>12.86</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	17.50	-	-	-	-
Increase in Stock	3.53	0.66	0.71	0.71	0.76
Increase in Debtors	2.87	0.75	0.65	0.69	0.72
Repayment of Term Loan	1.75	3.50	3.50	3.50	3.50
Taxation	-	0.17	0.52	1.05	1.57
Drawings	2.50	3.20	4.00	5.00	6.50
<b>TOTAL :</b>	<b>28.15</b>	<b>8.28</b>	<b>9.38</b>	<b>10.95</b>	<b>13.04</b>
Opening Cash & Bank Balance	-	1.32	0.61	0.18	0.47
Add : Surplus	1.32	- 0.71	- 0.43	0.29	- 0.19
Closing Cash & Bank Balance	<b>1.32</b>	<b>0.61</b>	<b>0.18</b>	<b>0.47</b>	<b>0.28</b>

**COMPUTATION OF CLOSING STOCK & WORKING CAPITAL**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>Finished Goods</u></b>					
(15 Days requirement)	2.45	2.91	3.40	3.89	4.42
<b><u>Raw Material</u></b>					
(15 Days requirement)	1.08	1.29	1.50	1.72	1.95
<b>Closing Stock</b>	<b>3.53</b>	<b>4.19</b>	<b>4.90</b>	<b>5.61</b>	<b>6.37</b>

**COMPUTATION OF WORKING CAPITAL REQUIREMENT**

<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	3.53		
Less:			
Sundry Creditors	1.08		
<b>Paid Stock</b>	<b>2.45</b>	<b>0.24</b>	<b>2.20</b>
Sundry Debtors	2.87	0.29	2.59
<b>Working Capital Requirement</b>			<b>4.79</b>
<b>Margin</b>			0.53
<b>MPBF</b>			<b>4.79</b>
<b>Working Capital Demand</b>			<b>4.79</b>

**REPAYMENT SCHEDULE OF TERM LOAN**

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
<b>I</b>	Opening Balance						
	Ist Quarter	-	15.75	15.75	0.43	-	15.75
	Iind Quarter	15.75	-	15.75	0.43	-	15.75
	IIIrd Quarter	15.75	-	15.75	0.43	0.88	14.88
	Ivth Quarter	14.88	-	14.88	0.41	0.88	14.00
					1.71	1.75	
<b>II</b>	Opening Balance						
	Ist Quarter	14.00	-	14.00	0.39	0.88	13.13
	Iind Quarter	13.13	-	13.13	0.36	0.88	12.25
	IIIrd Quarter	12.25	-	12.25	0.34	0.88	11.38
	Ivth Quarter	11.38		11.38	0.31	0.88	10.50
					1.40	3.50	
<b>III</b>	Opening Balance						
	Ist Quarter	10.50	-	10.50	0.29	0.88	9.63
	Iind Quarter	9.63	-	9.63	0.26	0.88	8.75
	IIIrd Quarter	8.75	-	8.75	0.24	0.88	7.88
	Ivth Quarter	7.88		7.88	0.22	0.88	7.00
					1.01	3.50	
<b>IV</b>	Opening Balance						
	Ist Quarter	7.00	-	7.00	0.19	0.88	6.13
	Iind Quarter	6.13	-	6.13	0.17	0.88	5.25
	IIIrd Quarter	5.25	-	5.25	0.14	0.88	4.38
	Ivth Quarter	4.38		4.38	0.12	0.88	3.50
					0.63	3.50	
<b>V</b>	Opening Balance						
	Ist Quarter	3.50	-	3.50	0.10	0.88	2.63
	Iind Quarter	2.63	-	2.63	0.07	0.88	1.75
	IIIrd Quarter	1.75	-	1.75	0.05	0.88	0.88
	Ivth Quarter	0.88		0.88	0.02	0.88	-
					0.24	3.50	

Door to Door Period      60 Months  
Moratorium Period        6 Months  
Repayment Period         54 Months

**CALCULATION OF D.S.C.R**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>CASH ACCRUALS</u></b>	5.57	7.20	8.22	9.97	11.06
Interest on Term Loan	1.71	1.40	1.01	0.63	0.24
Total	7.27	8.59	9.23	10.59	11.30
<b><u>REPAYMENT</u></b>					
Repayment of Term Loan	1.75	3.50	3.50	3.50	3.50
Interest on Term Loan	1.71	1.40	1.01	0.63	0.24
Total	3.46	4.90	4.51	4.13	3.74
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.10</b>	<b>1.76</b>	<b>2.05</b>	<b>2.57</b>	<b>3.02</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.27</b>		

### **Assumptions:**

1. Production Capacity of Chicory Powder unit is taken at 600 KG per day. First year, Capacity has been taken @ 30%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 15 days.
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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