

# PROJECT REPORT

Of

# GERANIUM OIL

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Geranium Oil**.

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 : xxxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx  
Pin: xxxxxxxx State: xxxxxxxxxx  
Mobile xxxxxxxx
- 5 Product and By Product : **GERANIUM OIL**
- 6 Name of the project / business activity proposed : **GERANIUM OIL MANUFACTURING UNIT**
- 7 Cost of Project : Rs.17.55 Lakhs
- 8 Means of Finance  
Term Loan Rs.12 Lakhs  
Own Capital Rs.1.76 Lakhs  
Working Capital Rs.3.8 Lakhs
- 9 Debt Service Coverage Ratio : 2.53
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 42%
- 13 Employment : 13 Persons
- 14 Power Requirement : 10 HP
- 15 Major Raw materials : Geranium shoot and Packing material
- 16 Estimated Annual Sales Turnover (Max Utilized Capacity) : 89.27 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 1500 Sq ft	9.00
Plant & Machinery	3.50
Furniture & Fixtures	0.83
Working Capital	4.22
<b>Total</b>	<b>17.55</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	1.76
Term Loan	12.00
Working Capital	3.80
<b>Total</b>	<b>17.55</b>

# GERANIUM OIL PROCESSING

## PRODUCT INTRODUCTION:

Geranium is a perennial shrub with small pink flowers & pointy leaves that is native to South Africa. Out of the many varieties of the plant, Geranium (scientific name of Geranium- Pelargoniumgraveolens) is the source of essential oil. Geranium essential oil is derived by distillation of the leaves of geranium plant. According to folklore, it was used for a wide range of health conditions. Geranium oil is grown in many regions, including Europe and Asia. There are many varieties and strains of the pink flower with a fresh, floral fragrance. Each variety differs in scent, but is nearly-identical in terms of composition, benefits, and uses.



## USES & MARKET POTENTIAL:

Geranium oil is a type of essentially oil generally used in aromatherapy. Sourced from the flowers and leaves of the Pelargoniumgraveolens plant, the geranium essential offers a variety of health benefits. Geranium oil contains a number of compounds thought to enhance health, including citronellol and geraniol. Geranium essential oil has antibacterial, antimicrobial, and antiseptic properties, which make it beneficial for reducing acne breakouts, skin irritation, and skin infections when applied externally.

Geranium essential oil's anti-inflammatory properties also make it beneficial for a number of inflammatory conditions, including those affecting skin.

The overall demand for essential oil has been on the rise over the past few years which is attributable to the rising awareness about the health benefits associated with the product. An ever-increasing global population, rapid urbanisation, a growing pharmaceutical sector, and rising geriatric population are some of the significant factors that are influencing a steady shift in consumer preferences. Another major factor that is responsible for the unprecedented growth of geranium essential oil market is that there is no other alternative for natural ingredients.

### **MACHINERY REQUIREMENT:**

Basic machinery requirement are as follows:

1. Heating Vessel
2. Condenser
3. Steam Pipe
4. Separator
5. Water Pump
6. Cooling Tower
7. Water Tank
8. Filling Machine

### **RAW MATERIAL:**

Basic raw material requirements are as follows:

1. Geranium Shoot
2. Packing Material (Bottles)

## **EXTRACTION PROCESS:**

The Geranium Shoots are purchased from farmers and stored temporarily in a shaded area; it acts as a raw material inventory for distillation unit. The steam and hydro distillation methods are generally employed to perform a simple distillation process.

The Geranium Shoot are boiled with water in a heating vessel and are boiled for 3 to 4hrs for optimal extraction, during this period the steam generated carries along with it Geranium Oil as it also get vaporized from within shoot of plant.

This steam is transferred to condenser via steam pipe, as condenser is circulated with cooling water continuously utilizing a pump, thus steam transferred to condenser undergoes condensation completing distillation process, while used cooling water is sent to cooling tower where it undergoes evaporative cooling to lower its temperature and become reusable for cooling.

The cooled water in cooling tower pump is replenished periodically with make-up water from another water tank, if required via a make-up water pump to make up for evaporated water in evaporative cooling.

The contents (Water + Geranium Oil) obtained from condenser are supplied to separator and then the liquid is allowed to settle down and as oil and water are immiscible, water settles below while Geranium Oil settles above water layer.

A valve is located at bottom of the separator which is used to drain almost all the water from separator, this water is supplied back to heating vessel for enrichment purpose. The enrichment process continues for 3 to 4hrs, after which most of the Geranium oil is extracted and it's not feasible to go after the remainder of portion.

Now water is completely drained from separator and oil is supplied to a filling machine. The filling machine fills the geranium oil in appropriate sized bottles which can range from 10ml to 500ml and machine setting are made accordingly.

**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	-	2.63	3.97	6.79	9.99
Add: Additions	1.76	-	-	-	-
Add: Net Profit	1.88	3.34	5.82	8.20	10.88
Less: Drawings	1.00	2.00	3.00	5.00	8.00
<b>Closing Balance</b>	<b>2.63</b>	<b>3.97</b>	<b>6.79</b>	<b>9.99</b>	<b>12.87</b>
CC Limit	3.80	3.80	3.80	3.80	3.80
Term Loan	10.66	8.00	5.33	2.67	-
Sundry Creditors	0.35	0.40	0.46	0.53	0.60
<b>TOTAL :</b>	<b>17.44</b>	<b>16.17</b>	<b>16.39</b>	<b>16.98</b>	<b>17.26</b>
<b><u>APPLICATION OF FUND</u></b>					
<b>Fixed Assets ( Gross)</b>	13.33	13.33	13.33	13.33	13.33
Gross Dep.	1.51	2.84	4.01	5.05	5.97
Net Fixed Assets	11.82	10.49	9.32	8.28	7.36
<b>Current Assets</b>					
Sundry Debtors	2.54	3.02	3.46	3.94	4.46
Stock in Hand	2.13	2.39	2.71	3.05	3.42
Cash and Bank	0.95	0.27	0.90	1.72	2.02
<b>TOTAL :</b>	<b>17.44</b>	<b>16.17</b>	<b>16.39</b>	<b>16.98</b>	<b>17.26</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	1.76	-			
Net Profit	1.88	3.34	5.87	8.37	11.19
Depreciation & Exp. W/off	1.51	1.33	1.18	1.04	0.92
Increase In Cash Credit	3.80				
Increase In Term Loan	12.00	-	-	-	-
Increase in Creditors	0.35	0.05	0.06	0.06	0.07
<b>TOTAL :</b>	<b>21.28</b>	<b>4.72</b>	<b>7.10</b>	<b>9.47</b>	<b>12.18</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	13.33	-	-	-	-
Increase in Stock	2.13	0.26	0.32	0.34	0.37
Increase in Debtors	2.54	0.48	0.45	0.47	0.53
Repayment of Term Loan	1.33	2.67	2.67	2.67	2.67
Taxation	-	-	0.04	0.17	0.31
Drawings	1.00	2.00	3.00	5.00	8.00
<b>TOTAL :</b>	<b>20.33</b>	<b>5.40</b>	<b>6.47</b>	<b>8.65</b>	<b>11.87</b>
Opening Cash & Bank Balance	-	0.95	0.27	0.90	1.72
Add : Surplus	0.95	- 0.68	0.63	0.82	0.30
Closing Cash & Bank Balance	<b>0.95</b>	<b>0.27</b>	<b>0.90</b>	<b>1.72</b>	<b>2.02</b>

**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	50.72	60.33	69.26	78.76	89.27
<b>Total (A)</b>	<b>50.72</b>	<b>60.33</b>	<b>69.26</b>	<b>78.76</b>	<b>89.27</b>
<b><u>B) COST OF SALES</u></b>					
Raw Mateiral Consumed	20.99	24.24	27.78	31.58	35.71
Electricity Expenses	1.12	1.23	1.34	1.46	1.57
Repair & Maintenance	0.25	0.30	0.35	0.39	0.45
Labour & Wages	10.76	11.83	13.02	14.32	15.75
Depreciation	1.51	1.33	1.18	1.04	0.92
<b>Cost of Production</b>	<b>34.63</b>	<b>38.94</b>	<b>43.66</b>	<b>48.79</b>	<b>54.39</b>
<b>Add: Opening Stock /WIP</b>	-	1.15	1.26	1.41	1.58
<b>Less: Closing Stock /WIP</b>	1.15	1.26	1.41	1.58	1.76
Cost of Sales (B)	33.47	38.83	43.51	48.63	54.21
<b>C) GROSS PROFIT (A-B)</b>	<b>17.25</b>	<b>21.50</b>	<b>25.75</b>	<b>30.13</b>	<b>35.06</b>
	<b>34.01%</b>	<b>35.63%</b>	<b>37.18%</b>	<b>38.26%</b>	<b>39.28%</b>
D) Bank Interest (Term Loan )	1.30	1.06	0.77	0.48	0.18
ii) Interest On Working Capital	0.42	0.42	0.42	0.42	0.42
E) Salary to Staff	8.58	9.44	10.38	11.42	12.56
F) Selling & Adm Expenses Exp.	5.07	7.24	8.31	9.45	10.71
<b>TOTAL (D+E)</b>	<b>15.37</b>	<b>18.16</b>	<b>19.88</b>	<b>21.77</b>	<b>23.88</b>
H) NET PROFIT	1.88	3.34	5.87	8.37	11.19
	<b>3.7%</b>	<b>5.5%</b>	<b>8.5%</b>	<b>10.6%</b>	<b>12.5%</b>
I) Taxation	-	-	0.04	0.17	0.31
J) PROFIT (After Tax)	1.88	3.34	5.82	8.20	10.88



**COMPUTATION OF GERANIUM OIL MANUFACTURING UNIT****Items to be Manufactured GERANIUM OIL**

Manufacturing Capacity per Day		2.00	kg
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		600	kg
Total Production per Annum		636.00	Ltr
Total Production per Annum		63,600.00	10 ml Bottles
Year		Capacity	GERANIUM OIL
		Utilisation	
I		50%	31,800
II		55%	34,980
III		60%	38,160
IV		65%	41,340
V		70%	44,520

**COMPUTATION OF RAW MATERIAL**

Item Name		Quantity of Raw Material	Unit	Unit Rate of	Total Cost Per Annum (100%)
Raw Material Consumed		600	tonne	7,000	4,200,000
Total		<b>600.00</b>			<b>4,200,000.00</b>

Total Raw material in Rs lacs at 100% Capacity 42.00  
 Cost per 10 ml Bottle (In Rs) **66.00**

Raw Material Consumed	Capacity Utilisation	Rate	Amount (Rs.)
I	50%	66.00	20.99
II	55%	69.30	24.24
III	60%	72.80	27.78
IV	65%	76.40	31.58
V	70%	80.20	35.71

**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>Finished Goods</b>					
(10 Days requirement)	1.15	1.26	1.41	1.58	1.76
<b>Raw Material</b>					
(14 Days requirement)	0.98	1.13	1.30	1.47	1.67
<b>Closing Stock</b>	<b>2.13</b>	<b>2.39</b>	<b>2.71</b>	<b>3.05</b>	<b>3.42</b>

**COMPUTATION OF WORKING CAPITAL REQUIREMENT**

<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	2.13		
Less:			
Sundry Creditors	0.35		
<b>Paid Stock</b>	<b>1.78</b>	<b>0.18</b>	<b>1.61</b>
Sundry Debtors	2.54	0.25	2.28
<b>Working Capital Requirement</b>			<b>3.89</b>
<b>Margin</b>			0.43
<b>MPBF</b>			<b>3.89</b>
<b>Working Capital Demand</b>			<b>3.80</b>

**BREAK UP OF LABOUR**

Particulars	Wages	No of	Total
Supervisor	20,000.00	1	20,000.00
Plant Operator	15,000.00	1	15,000.00
Unskilled Worker	8,500.00	4	34,000.00
Helper	5,000.00	1	5,000.00
Security Guard	7,500.00	1	7,500.00
			81,500.00
Add: 10% Fringe Benefit			8,150.00
Total Labour Cost Per Month			89,650.00
Total Labour Cost for the year ( In Rs. Lakhs)		8	10.76

**BREAK UP OF SALARY**

Particulars	Salary	No of	Total
Accountant cum store keeper	15,000.00	1	15,000.00
Administrative Staffs	12,500.00	4	50,000.00
Total Salary Per Month			65,000.00
Add: 10% Fringe Benefit			6,500.00
Total Salary for the month			71,500.00
Total Salary for the year ( In Rs. Lakhs)		5	8.58

**COMPUTATION OF DEPRECIATION**

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
<b>Opening Balance</b>	Own/Rented		-	-	-
Addition	-	9.00	3.50	0.83	13.33
	-	9.00	3.50	0.83	13.33
TOTAL		9.00	3.50	0.83	13.33
Less : Depreciation	-	0.90	0.53	0.08	1.51
WDV at end of Ist year	-	8.10	2.98	0.75	11.82
Additions During The Year	-	-	-	-	-
	-	8.10	2.98	0.75	11.82
Less : Depreciation	-	0.81	0.45	0.07	1.33
WDV at end of IIInd Year	-	7.29	2.53	0.67	10.49
Additions During The Year	-	-	-	-	-
	-	7.29	2.53	0.67	10.49
Less : Depreciation	-	0.73	0.38	0.07	1.18
WDV at end of IIIrd year	-	6.56	2.15	0.61	9.32
Additions During The Year	-	-	-	-	-
	-	6.56	2.15	0.61	9.32
Less : Depreciation	-	0.66	0.32	0.06	1.04
WDV at end of IV year	-	5.90	1.83	0.54	8.28
Additions During The Year	-	-	-	-	-
	-	5.90	1.83	0.54	8.28
Less : Depreciation	-	0.59	0.27	0.05	0.92
WDV at end of Vth year	-	5.31	1.55	0.49	7.36

**REPAYMENT SCHEDULE OF TERM LOAN**

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
<b>I</b>	Opening Balance						
	Ist Quarter	-	12.00	12.00	0.33	-	12.00
	IInd Quarter	12.00	-	12.00	0.33	-	12.00
	IIIRD Quarter	12.00	-	12.00	0.33	0.67	11.33
	Ivth Quarter	11.33	-	11.33	0.31	0.67	10.66
					1.30	1.33	
<b>II</b>	Opening Balance						
	Ist Quarter	10.66	-	10.66	0.29	0.67	10.00
	IInd Quarter	10.00	-	10.00	0.27	0.67	9.33
	IIIRD Quarter	9.33	-	9.33	0.26	0.67	8.66
	Ivth Quarter	8.66		8.66	0.24	0.67	8.00
					1.06	2.67	
<b>III</b>	Opening Balance						
	Ist Quarter	8.00	-	8.00	0.22	0.67	7.33
	IInd Quarter	7.33	-	7.33	0.20	0.67	6.67
	IIIRD Quarter	6.67	-	6.67	0.18	0.67	6.00
	Ivth Quarter	6.00		6.00	0.16	0.67	5.33
					0.77	2.67	
<b>IV</b>	Opening Balance						
	Ist Quarter	5.33	-	5.33	0.15	0.67	4.67
	IInd Quarter	4.67	-	4.67	0.13	0.67	4.00
	IIIRD Quarter	4.00	-	4.00	0.11	0.67	3.33
	Ivth Quarter	3.33		3.33	0.09	0.67	2.67
					0.48	2.67	
<b>V</b>	Opening Balance						
	Ist Quarter	2.67	-	2.67	0.07	0.67	2.00
	IInd Quarter	2.00	-	2.00	0.05	0.67	1.33
	IIIRD Quarter	1.33	-	1.33	0.04	0.67	0.67
	Ivth Quarter	0.67		0.67	0.02	0.67	0.00
					0.18	2.67	

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>	3.38	4.67	7.00	9.24	11.80
Interest on Term Loan	1.30	1.06	0.77	0.48	0.18
Total	4.69	5.73	7.77	9.71	11.98
<b><u>REPAYMENT</u></b>					
Repayment of Term Loan	1.33	2.67	2.67	2.67	2.67
Interest on Term Loan	1.30	1.06	0.77	0.48	0.18
Total	2.63	3.73	3.44	3.14	2.85
<b>DEBT SERVICE COVERAGE RAT</b>	<b>1.78</b>	<b>1.54</b>	<b>2.26</b>	<b>3.09</b>	<b>4.20</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.53</b>		

**COMPUTATION OF SALE**

Particulars	I	II	III	IV	V
Op Stock	-	1,060.00	1,166.00	1,272.00	1,378.00
Production	31,800.00	34,980.00	38,160.00	41,340.00	44,520.00
	31,800.00	36,040.00	39,326.00	42,612.00	45,898.00
Less : Closing Stock(10 Days)	1,060.00	1,166.00	1,272.00	1,378.00	1,484.00
Net Sale	30,740.00	34,874.00	38,054.00	41,234.00	44,414.00
Sale Price per 10 ml Bottle	165.00	173.00	182.00	191.00	201.00
<b>Sale (in Lacs)</b>	<b>50.72</b>	<b>60.33</b>	<b>69.26</b>	<b>78.76</b>	<b>89.27</b>

**COMPUTATION OF ELECTRICITY****(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	HP	10	
Load Factor		0.7460	
Electricity Charges	per unit	7.50	
Total Working Days		300	
<b>Electricity Charges</b>			1.34
Add : Minimim Charges (@ 10%)			

**(B) DG set**

No. of Working Days		300	days
No of Working Hours		0.5	Hour per day
Total no of Hour		150	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		1,200	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		0.78	
Add : Lube Cost @ 15%		0.12	
<b>Total</b>		<b>0.90</b>	

Total cost of Power & Fuel at 100% 2.24

<b>Year</b>	<b>Capacity</b>	<b>Amount (in Lacs)</b>
I	50%	1.12
II	55%	1.23
III	60%	1.34
IV	65%	1.46
V	70%	1.57



## **DISCLAIMER**

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