

ASSUMPTIONS

CONVERSION FACTORS	
kg per ton	1,000
maund per ton	25
Months/year	12
Days per month	30
hours per day	24
Minutes per hour	60
Seconds per minute	60
sq. ft. per Kanal	5,440
sq. ft. / acre	43,520
sq. ft. / sq. yard	9.0

Currency Conversions	
PKR/USD	130
PKR/AED	30

WORKING CAPITAL ASSUMPTIONS	
Accounts Receivables months	3
Accounts Payables (days)	
Furnace Oil	60
Packing Material	60
Electricity bill	30
Spare parts inventory (% of machinery)	1%
Minimum Cash Balance	500,000
Increase in spares inventory	5%

COST ASSUMPTIONS	
Packing vessel (PKR/vessel)	1,200

Sale Price Growth Rate	Export	Local
Mentha Oil	5.0%	8.0%
Biomass		5.0%
Land Lease Cost (Rs/acre)	30,000	
Land Cost (Rs/acre)	5,000,000	
Farmyard Manure (PKR/ton)	800	
Urea cost (PKR/bag of 50 kg)	1,700	50 kg
SSP cost (PKR/bag of 50 kg)	1,250	50 kg
Sulphate of Potash (SOP) (PKR/bag of 50 kg)	3,600	50 kg
Plant Protection Cost (PKR/acre/harvesting)	800	

Costs Growth Rates	
Farming Cost Growth Rate	5%
Electricity Cost growth	8%
Diesel cost growth rate	8%
Lab consumable apparatus growth rate	8%
Furnace oil cost growth rate	8%
Packing vessels growth rate	8%
Fuel & vehicle maintenance cost growth rate	5%
Payroll growth rate	8%
Machine maintenance increase per year	0.10%
Travel cost growth rate	8%

Basic Costs (Rs)	
Diesel cost (Rs/liter)	106
Petrol cost (Rs/liter)	95
Furnace oil rate (Rs/kg)	80

FINANCIAL/ACCOUNTING ASSUMPTIONS	
Cost of capital (for discounting)	20%
Machine maintenance (% of machine cost)	1%
Consultancy charges (% of building)	5%
Tax Rate	35%

MARKETING COSTS ASSUMPTIONS	
Advertising brochure cost (Rs)	50
Growth in brochure cost	5%
Cost per mail letter (Rs)	20
Growth in mail cost	5%
Cost per foreign marketing trip	200,000
Growth rate of travel cost	10%
Cost per seminar	100,000
Growth rate in seminar cost	10%
Newspaper advertisement cost (Rs)	200,000
Newspaper advertisement cost growth	10%
Cost of newspaper supplement	50,000
Growth rate in supplement cost	5%
Website development cost	25,000

Website maintenance cost per year	12,000
Growth in website maintenance cost	5%
Internet advertisement cost per year	12,000
Internet advertisement cost growth rate	5%
Cost of trade fair (Rs)	250,000
Growth in trade fair cost	5%

Administrative	
Office rent (Rs/month)	-
Office rent growth rate	8%
Stationery cost per month	2,000
Stationery cost growth rate	8%
Mail cost per month	2,000
Telephone bill per month	6,000
Telephone bill growth rate	8%
Internet cost per month	4,000
Internet cost growth rate	8%
Refreshment cost per month	5,000
Refreshment cost growth rate	10%
Average travel cost per visit (Rs)	5,000

Legal/Regulatory	
Regulatory fee (Rs/annum)	25,000
Growth rate of regulatory fee per annum	5%
Audit fee (Rs/annum)	-
Growth rate of audit fee per annum	5%
Legal/Professional fee (Rs/annum)	25,000
Growth rate of legal fee per annum	5%
Insurance rate (machinery)	1%
Insurance rate (vehicles)	3%
Miscellaneous expenses	10,000
Growth rate of miscellaneous expenses	5%

Debt	
Interest Rate per annum	15%
Debt Tenure (years)	10

PROJECT COST

Cost Item	Cost (Rs)	
Land	-	0.0%
Building & Civil Works	2,546,000	15.8%
Processing Machinery	2,140,000	13.3%
Utility/Allied Machinery	750,000	4.6%
Farm Machinery	1,450,000	9.0%
Laboratory Equipment	45,500	0.3%
Office Equipment & Furniture	570,000	3.5%
Vehicles	-	0.0%
Pre-operating expenses	1,010,100	6.3%
Capital Investment	8,511,600	52.7%
Working Capital	7,628,978	47.3%
Total Project Cost	16,140,578	100.0%

Initial Working Capital (at 85% capacity utilization)	Cost (Rs)
Farm Inputs	4,789,330
Packing Material	229,800
Furnace Oil	1,632,000
Electricity bills	24,448
Salaries	410,000
Spares	43,400
Starting Cash Balance	500,000
Total Working Capital	7,628,978

Financing Plan	Amount	Share
Equity	16,140,578	100%
Debt	-	0%
Total	16,140,578	

LIST OF PROCESSING MACHINERY

Sr. No.	Name of the Machine	No.	Unit Cost (PKR)	Total Cost (PKR)	Power (KW)
1	Steam Distillation Unit	1	1,900,000	1,900,000	
2	Hoist Pulley System (motorized)	1	40,000	40,000	
3	Water Supply System	1	200,000	200,000	
	Total			2,140,000	

LIST OF UTILITY MACHINERY & EQUIPMENT

Sr.no	Name of the machine	No.	Unit Price (PKR)	Total Price (PKR)	Power (KW)
1	Boiler (1 ton/hr)	1	600,000	600,000	
2	Generator (5 KVA)	1	150,000	150,000	
	Total			750,000	-

LIST OF FARM MACHINERY & EQUIPMENT

Sr.no	Name of the machine	No.	Unit Price (PKR)	Total Price (PKR)	Power (KW)
1	Tractor	1	880,000	880,000	
2	Tractor Trolley	1	200,000	200,000	
3	Harvester (Cutter)	1	350,000	350,000	
4	Agriculture Implements	1	20,000	20,000	
	Total			1,450,000	-

Machinery	Cost (PKR)
Processing Machinery	2,140,000
Utility/Allied Machinery	750,000
Farm Machinery	1,450,000
Total	4,340,000

Electricity connection	1	5 KVA	100,000	
Tube well (1/2 cusec, 30-35 feet head)	1	300,000	300,000	10

LABORATORY EQUIPMENT

	Items description	Unit	Quantity	Cost (PKR)
1	Abbe Refractometer	No.	1	25,000
2	Analytical Balance	No.	1	3,500
3	Specific Gravity Bottle	No.	1	1,000
5	Thermometers	No.	5	1,000
5	Common Lab Apparatus	No.	1	15,000
	Total			45,500

REVENUES

Essential Oils Production

Product	Oil Yield (kg/acre)	Production per year (kg)
Mentha Oil	90	9,000

Capacity Utilization

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	85%	95%	100%	100%	100%	100%	100%	100%	100%	100%

Mentha Oil (Main Product)

Share of Exports	25%	50%	75%	75%	75%	75%	75%	75%	75%	75%
Share of Local Sales	75%	50%	25%	25%	25%	25%	25%	25%	25%	25%
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Total Production (kg)	7,650	8,550	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000

Revenues from Exports

Sales in Export Market (kg)	1,913	4,275	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750
Export Sale Price (PKR/kg)	2,300	2,415	2,536	2,663	2,796	2,935	3,082	3,236	3,398	3,568
Revenues from Exports	4,398,750	10,324,125	17,116,313	17,972,128	18,870,735	19,814,271	20,804,985	21,845,234	22,937,496	24,084,371

Revenues from Local Market

Sale in Local Market	5,738	4,275	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Local market Price (PKR/kg)	2,200	2,376	2,566	2,771	2,993	3,233	3,491	3,770	4,072	4,398
Revenues from Local Sales	12,622,500	10,157,400	5,773,680	6,235,574	6,734,420	7,273,174	7,855,028	8,483,430	9,162,105	9,895,073

Revenues from Mint Oil (PKR)	17,021,250	20,481,525	22,889,993	24,207,703	25,605,155	27,087,445	28,660,013	30,328,664	32,099,600	33,979,443
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Byproduct

Biomass Production	
Mint Biomass Production (Ton)	
Loading per batch (Ton)	3.0
Dried Biomass per batch (ton)	0.7
No. of Batches per year	600

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Biomass Production (Tons)	357	399	420	420	420	420	420	420	420	420
Sale Price (PKR/ton)	2,000	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955	3,103
Revenues from Byproduct (PKR)	714,000	837,900	926,100	972,405	1,021,025	1,072,077	1,125,680	1,181,964	1,241,063	1,303,116

Total Revenues

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues from Main Product (PKR)	17,021,250	20,481,525	22,889,993	24,207,703	25,605,155	27,087,445	28,660,013	30,328,664	32,099,600	33,979,443
Revenues from Byproduct (PKR)	714,000	837,900	926,100	972,405	1,021,025	1,072,077	1,125,680	1,181,964	1,241,063	1,303,116
Total Revenues (PKR)	17,735,250	21,319,425	23,816,093	25,180,108	26,626,180	28,159,522	29,785,693	31,510,629	33,340,663	35,282,559

HUMAN RESOURCE REQUIREMENT

Designation	No.	Salary (Rs/month)	Total (Rs/month)	No. of Months	Salary per annum
Manager	1	50,000	50,000	12	600,000
Admin/Accounts Officer	1	30,000	30,000	12	360,000
Production Supervisor	1	25,000	25,000	12	300,000
Farm Workers	8	15,000	120,000	6	720,000
Boiler Operator	1	25,000	25,000	12	300,000
Security Guard	1	15,000	15,000	12	180,000
Total Staff	13		265,000		2,460,000

Production Staff Cost (Rs)					1,320,000
Administration Staff Cost (Rs)					1,140,000
Total HR Cost (Rs)					2,460,000

	Cost -Year 1 (PKR)
Production Staff Cost	1,320,000
Administration Staff Cost	1,140,000
Total	2,460,000

DEPRECIATION SCHEDULE

Depreciation

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Land	0%	-	-	-	-	-	-	-	-	-	-	-
Building & Civil Works	5%	2,546,000	127,300	127,300	127,300	127,300	127,300	127,300	127,300	127,300	127,300	127,300
Processing Machinery	10%	2,140,000	214,000	214,000	214,000	214,000	214,000	214,000	214,000	214,000	214,000	214,000
Utility Machinery	10%	750,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Farm Machinery	10%	1,450,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000
Laboratory Equipment	10%	45,500	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550
Office Equipment & Furniture	20%	570,000	114,000	114,000	114,000	114,000	114,000	-	-	-	-	-
Total		7,501,500	679,850	679,850	679,850	679,850	679,850	565,850	565,850	565,850	565,850	565,850

Year End Value

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Land		-	-	-	-	-	-	-	-	-	-	-
Building & Civil Works		2,546,000	2,418,700	2,291,400	2,164,100	2,036,800	1,909,500	1,782,200	1,654,900	1,527,600	1,400,300	1,273,000
Processing Machinery		2,140,000	1,926,000	1,712,000	1,498,000	1,284,000	1,070,000	856,000	642,000	428,000	214,000	-
Utility Machinery		750,000	675,000	600,000	525,000	450,000	375,000	300,000	225,000	150,000	75,000	-
Farm Machinery		1,450,000	1,305,000	1,160,000	1,015,000	870,000	725,000	580,000	435,000	290,000	145,000	-
Laboratory Equipment		45,500	40,950	36,400	31,850	27,300	22,750	18,200	13,650	9,100	4,550	-
Office Equipment & Furniture		570,000	456,000	342,000	228,000	114,000	-	-	-	-	-	-
Total		7,501,500	6,821,650	6,141,800	5,461,950	4,782,100	4,102,250	3,536,400	2,970,550	2,404,700	1,838,850	1,273,000

