



## Pre-feasibility Study

# GREEN / POLY HOUSE FARM (FRESH CUT ROSES)

September 2018

*“The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, and revenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA's website and consult financial experts to stay current with market conditions.”*

**Small and Medium Enterprises Development Authority**  
Ministry of Industries and Production  
Government of Pakistan

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## 1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data / information gathered from various reliable sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant / technical expert before taking any decision to act upon the information.

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### ***Document Control***

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## **2 EXECUTIVE SUMMARY**

Growing cut flowers especially roses is a profitable business, as they are the most traded flowers around the world. Local demand for cut flowers is growing tremendously due to increased usage especially decorative items in weddings, birthday parties, and other social gatherings.

Production of high quality fresh cut roses, requires proper green / poly house with a controlled environment. An important aspect of using a greenhouse is that high quality flowers can be produced all year round, irrespective of the weather changes. Additionally, it also increases annual production of fresh cut roses three times compare to open cut flower farms. Low cost of labor combined with reasonable land lease rates and a suitable climate for most part of the year makes investment in this business a lucrative proposition.

On average 12,000 rose plants will be sowed on 1 acre of land on four green / poly houses that will produce 2.16 million flowers per year. However, 20% of the total production goes to rose petals. Capacity utilization during first year of operation is assumed to be at 40%, whereas capacity utilization growth rate for subsequently years will be considered 20%. The maximum capacity utilization is worked out at 80% in the 3rd year of operation.

The cost for setting up the proposed green / poly house farm for fresh cut roses on 01 acre land is Rs. 8.71 million out of which Rs. 8.34 million is capital cost and Rs. 0.37 million is for working capital. The farm will provide employment to 3 individuals in addition to seasonal labor for picking and pruning etc. The project is proposed to be financed through 50% debt and 50% equity. The project NPV is projected Rs. 4.19 million, with an IRR of 25% and a payback period of 4.34 years. The legal status of the business is proposed as 'Sole Proprietorship'.

### 3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

### 4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document / study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Green / Poly House Farm (Fresh Cut Roses)** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

## 5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

This pre-feasibility study is designed to provide information for establishing a fresh cut flower greenhouse farm for “Roses” at 01 acre of land. The land for the proposed farm is recommended to be purchased at an appropriate location as identified in the geographical potential section. In 01 acre of proposed land four green / poly sheds with each having ‘200 by 48’ feet dimensions will be installed. The basic function of a green / poly house is to protect the plants from severe climatic conditions and provide favorable environment that is required for optimal production of the crop.

The basic structure of green / poly house is made of ‘Galvanized Pipes’ which is covered by ‘Green Shade Net’ in summer and ‘Polythene Sheets’ in winter. Galvanized Pipes have a useful life of 10 years, whereas ‘Green Shade Net’ and ‘Polythene Sheets’ have useful life of 05 years and 01 year, respectively.

The farm will have 12 thousand rose plants having productive life of 10 years. On average, maximum yield of one plant is approximately 180 flowers per year. Accordingly, the farm will have a total production capacity of 2.16 million flowers per year, however, for the first year farm productivity is assumed at 40%. The cut flowers will be sold in the wholesale markets of the respective districts / metropolitan cities. Moreover, based on quality of flowers and efficient management of supply chain, export potential of cut rose flowers will also be tapped.

### 5.1 Installed And Operational Capacities

Four green / poly houses will be constructed for one-acre land with useful life of 10 years. On average there are 12,000 rose plants, which will be producing 2.16 million flowers per year, with adequate pruning, picking and delivery arrangements. However, 20% of the total production goes to rose petals, hence, quantity available for sale i.e. rose petals, would be 1,080 kgs from 432,000 flowers.

Capacity utilization during first year of operation is assumed to be at 40%, whereas capacity utilization growth rate for subsequently years will be considered 20%. The maximum capacity utilization is worked out at 80% in the 3<sup>rd</sup> year of

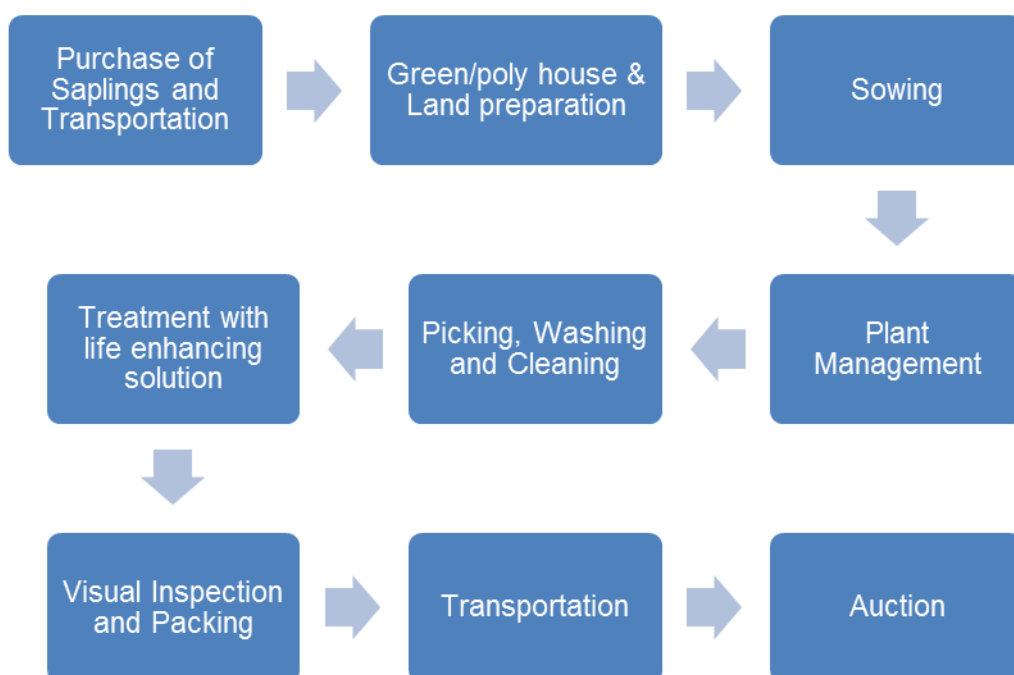
operation. This production capacity is estimated to be economically viable and justifies the capital as well as operational costs of the project.

The details of installed and operational capacities are provided in the table below:

**Table 1: Installed and Operational Capacities**

Description	Installed Capacity	Operational Capacity Year 1 (40%)	Maximum Capacity Utilization (80%)
Cut Flowers Produced (180 flowers per plant, total plants 12,000)	2,160,000	864,000	1,728,000
Cut Flowers Lost to Petals (20% of flowers produced)	432,000	172,800	345,600

## 5.2 Production Process Flow



## 6 CRITICAL FACTORS

The proposed project has following factors critical to success:

- ⇒ Picking of the flowers is the most important process as it plays vital role for determining the price of flowers. Following steps should be followed:

- Picking should always be done early in the morning.
- After picking wash the flowers in clean water.

⇒ Flowers should be treated with life enhancing solutions to increase their life.

⇒ Dry flowers with natural air after the use of preservatives.

⇒ Inspect each flower for its quality then pack in wooden / cardboard boxes.

⇒ Forward linkages with the bulk buyers, and appropriate storage & transportation services.

## 7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Although Kasur and Sheikhpura districts of Punjab, Matiari & Jhirk in Sindh and Swat and Quetta valley have developed some expertise in the production of cut flowers. However, as Pattoki still serves as the hub for floricultural trade in Pakistan, it is therefore considered the most appropriate location. All major cities of the country with comparable land and atmospheric conditions can be selected for establishment of Cut Flower Farms.

Patto 'mandi' is the major forum for buying and selling of fresh cut flowers, especially roses. Flowers are distributed to all parts of the country including Karachi, Peshawar, Lahore, and Islamabad from here.

## 8 POTENTIAL TARGET CUSTOMERS / MARKETS

Potential markets for cut flowers (roses) are as under:

- Flower markets such as Patto Mandi and Begumkot Mandi at Pattoki and Sheikhpura districts, respectively.
- Retail flower shops at major urban centers.
- Direct supply to corporate and institutional customers.
- Wholesales; bulk sales for social, cultural and religious events.



## 9 PROJECT COST SUMMARY

### 9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales revenue of Rs.1.91 million in the year one. The capacity utilization during year one is worked out at 40% with 20% increase in subsequent years up to the maximum capacity utilization of 80%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

**Table 2: Project Economics**

Description	Details
Internal Rate of Return (IRR)	25%
Payback Period (Yrs.)	4.34
Net Present Value (Rs.)	4,189,777

### 9.2 Project Financing

Following table provides details of the equity required and variables related to bank loan:

**Table 3: Project Financing**

Description	Details
Total Equity (50%)	Rs. 4,354,408
Bank Loan (50%)	Rs. 4,354,408
Markup to the Borrower (%age / annum)	12%
Tenure of the Loan (Years)	5

### 9.3 Project Cost

Following requirements have been identified for operations of the proposed business.

**Table 4: Project Cost**

<b>Capital Investment</b>	<b>Amount (Rs.)</b>
Land	2,000,000
Building / Infrastructure	380,000
Land Tillage and Saplings of Rose Plants	4,836,269
Furniture & Fixtures	115,000
Green Shade Net	456,000
Polythene Sheet	64,000
Pre-Operating Costs	488,428
<b>Total Capital Cost</b>	<b>8,339,697</b>
<b>Working Capital Requirement</b>	
Raw Material Inventory	169,120
Cash Requirement	200,000
<b>Total Working Capital</b>	<b>369,120</b>
<b>Total Project Cost</b>	<b>8,708,817</b>

#### 9.4 Space Requirement

A one-acre plot would be required for the proposed green / poly house farm. For growing of rose flowers, four green / poly sheds with each having '200 by 48' feet dimensions will be installed, whereas a small storage room (around 250 sq. ft.) will also be constructed in the same plot. Although land is available on lease, but considering the amount of investment required for setting up a green / poly house it is better to own your own land. For this pre-feasibility study, the cost of 01-acre of land is estimated as Rs. 2,000,000. The overall cost of building for the proposed farm is as follow:

**Table 5: Space Requirement**

<b>Description</b>	<b>Area (sq. ft.)</b>	<b>Per Unit Cost (Rs.)</b>	<b>Total Cost (Rs.)</b>
Store for General Purposes	200	1,400	280,000
Flower Storage Room (Manual Cold Store)	50	2,000	100,000
<b>Total</b>			<b>380,000</b>

## 9.5 Green / Poly Houses

Installation of green / poly houses are the crucial inputs of this project. Green / poly house will have useful life of 10 years and it will provide controlled environment to rose plants. Green shade net can be used for all weather conditions; however, polythene sheet is used only during winter season. Useful life of green shade net is 5 years while polythene sheet has 1-year useful life. Major components of a green / poly house are:

- Galvanized Pipes
- Connecting Joints
- Installation Material (Cement, Crush, etc.)
- Green Shade net
- Polythene Sheet
- Water Pump with Water Tank

In this particular pre-feasibility study, it is recommended to install four green / poly houses on the acquired land; having the dimensions of “Length = 200 ft”, “Width = 48 ft” and “Height = 13 ft”. The proposed dimensions of green houses are easy to build and operate at small levels. The estimated costs of installation of green houses as well as rose sapling and land tillage costs are provided in the following table:

**Table 6: Green / Poly House Requirement and Costs**

Description	Qty	Unit Cost (Rs.)	Total Cost (Rs.)
<b>Per Shed Infrastructure Cost</b>			
Galvanized Pipes (20 Feet Long)	12,640	74	935,360
Connecting Joints	1	45,000	45,000
Installation Material (Cement, Crush, etc.)	1	45,000	45,000
Installation Cost (Labor)	1	60,000	60,000
<b>Cost for 1 Shed</b>			<b>1,085,360</b>
Green / Poly Shed Infrastructure Cost (04 Sheds on 01 acre)	4	1,085,360	4,341,440

Rose Sapling	12,000	25	300,000
Water Pump with Water Tank (Including Transformer and Installation Cost)	1	25,000	25,000
Farm Tools	1	40,000	40,000
Land Tillage	1	35,000	35,000
Contingency (2% of Shed Infrastructure Cost)			94,829
<b>Total</b>			<b>4,836,269</b>

### 9.6 Furniture & Fixtures Requirement

Following table provides the list of tools, equipment and fixtures required for the proposed cut flower farm:

**Table 7: Furniture & Fixtures Requirement**

Description	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
Deep Freezer	1	50,000	50,000
Air conditioner (1.5 tons Split)	1	65,000	65,000
<b>Total</b>			<b>115,000</b>

### 9.7 Raw Material Requirement

On time irrigation, use of prescribed pesticides; fertilizers and proper weeding are essential for required output and continuous supply in the market. Following table shows raw material requirement for 2,160,000 flowers on one-acre land:

**Table 8: Raw Material Requirement**

Description	Annual Cost (Rs.)
Pesticide Sprays	45,000
Fertilizers	35,000
Water	80,000
Weeding	40,000
<b>Total</b>	<b>200,000</b>

## 9.8 Human Resource Requirement

The table below provides details of human resource required to run the operations of proposed green / poly house farm smoothly:

**Table 9: Human Resource Requirement**

Description	No. of Employees	Monthly Salary per person (Rs.)	Total Salary per Month (Rs.)
Farm Manager	1	20,000	20,000
Workers	2	16,000	32,000
<b>Total</b>	<b>3</b>		<b>52,000</b>

Weeding will be done from outsourced laborers whose cost is already mentioned in Raw Material Calculation table.

## 9.9 Other Costs

An essential cost to be borne by the farmer is the packing (which is assumed as Rs. 0.20 per flower) and transportation cost (which is assumed as 2% on sales) from farm to Mandi.

## 9.10 Revenue Generation

Based on the capacity utilization of 40% for fresh cut roses and flower petals respectively, sales revenue during the first year of operations is estimated as under:

**Table 10: Revenue Generation – Year 1**

Description	Unit	Sale Price / Unit (Rs.)	First Year Production	First Year Sales Revenue (Rs)
Flowers with Stems	No of Flowers	2.75	691,200	1,900,800
Flowers as Petal	Kgs	20	432	8,640
<b>Total</b>				<b>1,909,440</b>

## 10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

### 10.1 Technical Experts / Consultants

Name of Expert / Organization	Address	Phone	Website
Institute of Horticultural Sciences, Faculty of Agriculture	University of Agriculture, Faisalabad	Ph: +92 41 9200161-70	<a href="http://www.uaf.edu.pk">www.uaf.edu.pk</a>
Director / National Coordinator (Horticulture)	National Agricultural Research Centre Park Road, Islamabad	Ph: +92 51 9207402, 90762419	<a href="http://www.narc.org.pk">www.narc.org.pk</a>
Saleem Enterprises (Green House Supplier)	P - 39, Scheme # 212, Part - 11, Dijkot Road, Faisalabad	Ph: +92 301 8666542	
Ch. Muhammad Tariq (Cut Flower Farm Consultant)	Gehlan Ithar, Kasur Road, Ilahabad	Ph: +92 304 0412131	

## 11 USEFUL WEB LINKS

Small & Medium Enterprises Development Authority (SMEDA)	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
Government of Pakistan	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
Ministry of Industries & Production	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
Ministry of Education, Training & Standards in Higher Education	<a href="http://moptt.gov.pk">http://moptt.gov.pk</a>
Government of Punjab	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
Government of Sindh	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
Government of Khyber Pakhtunkhwa	<a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a>
Government of Balochistan	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
Government of Gilgit Baltistan	<a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>
Government of Azad Jammu Kashmir	<a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>
Trade Development Authority of Pakistan (TDAP)	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
Security Commission of Pakistan (SECP)	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	<a href="http://www.fpcci.com.pk">www.fpcci.com.pk</a>
State Bank of Pakistan (SBP)	<a href="http://www.sbp.org.pk">www.sbp.org.pk</a>
Punjab Small Industries Corporation	<a href="http://www.psic.gov.pk">www.psic.gov.pk</a>
Sindh Small Industries Corporation	<a href="http://www.ssic.gov.pk">www.ssic.gov.pk</a>
Pakistan Horticulture Development and Export Company (PHDEC)	<a href="http://www.phdec.org.pk">www.phdec.org.pk</a>
Ministry of National Food Security and Research (MNFSR)	<a href="http://www.mnsfr.gov.pk">www.mnsfr.gov.pk</a>
Pakistan Agriculture Research Council (PARC)	<a href="http://www.parc.gov.pk">www.parc.gov.pk</a>
National Agriculture Research Council (NARC)	<a href="http://www.narc.gov.pk">www.narc.gov.pk</a>
Agriculture University of Faisalabad (UAF)	<a href="http://www.uaf.edu.pk">www.uaf.edu.pk</a>
Agriculture Department Government of Punjab	<a href="http://www.punjabagri.gov.pk">www.punjabagri.gov.pk</a>

Agriculture Department Government of Sindh

[www.sindhagri.gov.pk](http://www.sindhagri.gov.pk)

Agriculture Department Government of KPK

[www.khyberpakhtunkhwa.gov.pk](http://www.khyberpakhtunkhwa.gov.pk)



## 12 ANNEXURES

### 12.1 Income Statement

Calculations										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	1,909,440	3,150,576	4,620,845	5,082,929	5,591,222	6,150,344	6,765,379	7,441,917	8,186,108	9,004,719
<i>Cost of sales</i>										
Cost of goods sold 1	200,000	220,000	242,000	266,200	292,820	322,102	354,312	389,743	428,718	471,590
Packing Material	138,240	285,120	418,176	459,994	505,993	556,592	612,251	673,477	740,824	814,907
Operation costs 1 (direct labor)	624,000	686,400	755,040	830,544	913,598	1,004,958	1,105,454	1,215,999	1,337,599	1,471,359
Operating costs 3 (direct electricity)	108,000	118,800	130,680	143,748	158,123	173,935	191,329	210,461	231,508	254,658
Total cost of sales	1,070,240	1,310,320	1,545,896	1,700,486	1,870,534	2,057,588	2,263,346	2,489,681	2,738,649	3,012,514
Gross Profit	839,200	1,840,256	3,074,949	3,382,444	3,720,688	4,092,757	4,502,033	4,952,236	5,447,459	5,992,205
<i>General administration &amp; selling expenses</i>										
Travelling expense	38,189	63,012	92,417	101,659	111,824	123,007	135,308	148,838	163,722	180,094
Depreciation expense	623,727	630,127	637,167	644,911	653,429	736,239	746,546	757,884	770,356	784,075
Amortization of pre-operating costs	48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843
Subtotal	710,758	741,981	778,427	795,412	814,097	908,088	930,696	955,565	982,921	1,013,012
Operating Income	128,442	1,098,275	2,296,522	2,587,031	2,906,592	3,184,668	3,571,336	3,996,671	4,464,539	4,979,193
Gain / (loss) on sale of Polythene Sheet	25,600	53,760	84,736	118,810	156,291	197,520	242,872	292,759	347,635	
Earnings Before Interest & Taxes	154,042	1,152,035	2,381,258	2,705,841	3,062,882	3,382,188	3,814,208	4,289,429	4,812,173	4,979,193
Interest expense on long term debt (Debt facility : Bank 1)	522,529	522,529	413,198	290,747	153,602	-	-	-	-	-
Subtotal	522,529	522,529	413,198	290,747	153,602	-	-	-	-	-
Earnings Before Tax	(368,487)	629,506	1,968,060	2,415,094	2,909,280	3,382,188	3,814,208	4,289,429	4,812,173	4,979,193
Tax	-	71,926	272,709	339,764	413,892	484,828	549,631	620,914	699,326	724,379
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>(368,487)</b>	<b>557,580</b>	<b>1,695,352</b>	<b>2,075,330</b>	<b>2,495,388</b>	<b>2,897,360</b>	<b>3,264,577</b>	<b>3,668,515</b>	<b>4,112,848</b>	<b>4,254,815</b>

## 12.2 Balance Sheet

Calculations											SMEDA
Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Assets</b>											
<i>Current assets</i>											
Cash & Bank	200,000	324,147	525,854	1,981,689	3,746,119	5,118,770	9,026,147	13,334,189	18,079,671	23,302,354	29,380,234
Accounts receivable		26,157	34,658	53,229	66,464	73,111	80,422	88,464	97,310	107,041	117,745
Raw material inventory	169,120	277,816	399,406	483,282	584,771	707,573	856,163	1,035,958	1,253,509	1,516,745	-
Total Current Assets	369,120	628,120	959,918	2,518,200	4,397,355	5,899,453	9,962,732	14,458,611	19,430,490	24,926,140	29,497,979
<i>Fixed assets</i>											
Land	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Building/Infrastructure	380,000	361,000	342,000	323,000	304,000	285,000	266,000	247,000	228,000	209,000	190,000
Farm Structure	4,836,269	4,352,642	3,869,015	3,385,388	2,901,761	2,418,134	1,934,508	1,450,881	967,254	483,627	0
Green Shade Net	456,000	410,400	364,800	319,200	273,600	962,393	843,353	724,314	605,275	486,236	1,549,943
Furniture & fixtures	115,000	103,500	92,000	80,500	69,000	57,500	46,000	34,500	23,000	11,500	-
Office equipment	64,000	70,400	77,440	85,184	93,702	103,073	113,380	124,718	137,190	150,909	-
Total Fixed Assets	7,851,269	7,297,942	6,745,255	6,193,272	5,642,064	5,826,100	5,203,241	4,581,413	3,960,718	3,341,271	3,739,943
<i>Intangible assets</i>											
Pre-operation costs	488,428	439,585	390,742	341,900	293,057	244,214	195,371	146,528	97,686	48,843	-
Total Intangible Assets	488,428	439,585	390,742	341,900	293,057	244,214	195,371	146,528	97,686	48,843	-
<b>TOTAL ASSETS</b>	<b>8,708,817</b>	<b>8,365,647</b>	<b>8,095,915</b>	<b>9,053,371</b>	<b>10,332,475</b>	<b>11,969,767</b>	<b>15,361,344</b>	<b>19,186,552</b>	<b>23,488,894</b>	<b>28,316,254</b>	<b>33,237,922</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable		25,317	37,172	46,991	53,875	61,906	71,296	82,295	95,208	110,395	52,870
Total Current Liabilities	-	25,317	37,172	46,991	53,875	61,906	71,296	82,295	95,208	110,395	52,870
<i>Other liabilities</i>											
Deferred tax		-	71,926	344,634	684,398	1,098,290	1,583,118	2,132,749	2,753,663	3,452,988	4,177,367
Long term debt (Debt facility : Bank 1)	4,354,408	4,354,408	3,443,316	2,422,893	1,280,019	-	-	-	-	-	-
Total Long Term Liabilities	4,354,408	4,354,408	3,515,242	2,767,527	1,964,417	1,098,290	1,583,118	2,132,749	2,753,663	3,452,988	4,177,367
<i>Shareholders' equity</i>											
Paid-up capital	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408	4,354,408
Retained earnings		(368,487)	189,093	1,884,444	3,959,774	6,455,163	9,352,523	12,617,099	16,285,615	20,398,462	24,653,277
Total Equity	4,354,408	3,985,921	4,543,501	6,238,853	8,314,183	10,809,571	13,706,931	16,971,508	20,640,023	24,752,871	29,007,685
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>8,708,817</b>	<b>8,365,647</b>	<b>8,095,915</b>	<b>9,053,371</b>	<b>10,332,475</b>	<b>11,969,767</b>	<b>15,361,344</b>	<b>19,186,552</b>	<b>23,488,894</b>	<b>28,316,254</b>	<b>33,237,922</b>

## 12.3 Cash Flow Statement

Calculations											SMEDA
Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<i>Operating activities</i>											
Net profit		(368,487)	557,580	1,695,352	2,075,330	2,495,388	2,897,360	3,264,577	3,668,515	4,112,848	4,254,815
Add: depreciation expense		623,727	630,127	637,167	644,911	653,429	736,239	746,546	757,884	770,356	784,075
amortization of pre-operating costs		48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843	48,843
Deferred income tax		-	71,926	272,709	339,764	413,892	484,828	549,631	620,914	699,326	724,379
Accounts receivable		(26,157)	(8,501)	(18,571)	(13,235)	(6,646)	(7,311)	(8,042)	(8,846)	(9,731)	(10,704)
Raw material inventory	(169,120)	(108,696)	(121,590)	(83,875)	(101,489)	(122,802)	(148,590)	(179,794)	(217,551)	(263,237)	1,516,745
Accounts payable		25,317	11,855	9,819	6,884	8,031	9,389	11,000	12,913	15,187	(57,526)
Cash provided by operations	(169,120)	194,547	1,190,239	2,561,442	3,001,007	3,490,135	4,020,757	4,432,760	4,882,671	5,373,591	7,260,627
<i>Financing activities</i>											
Debt facility : Bank 1 - principal repayment		-	(911,092)	(1,020,423)	(1,142,874)	(1,280,019)	-	-	-	-	-
Additions to Debt facility : Bank 1	4,354,408	-	-	-	-	-	-	-	-	-	-
Issuance of shares	4,354,408	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	8,708,817	-	(911,092)	(1,020,423)	(1,142,874)	(1,280,019)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(8,339,697)	(70,400)	(77,440)	(85,184)	(93,702)	(837,465)	(113,380)	(124,718)	(137,190)	(150,909)	(1,182,747)
Acquisitions											
Cash (used for) / provided by investing activities	(8,339,697)	(70,400)	(77,440)	(85,184)	(93,702)	(837,465)	(113,380)	(124,718)	(137,190)	(150,909)	(1,182,747)
<b>NET CASH</b>	<b>200,000</b>	<b>124,147</b>	<b>201,707</b>	<b>1,455,835</b>	<b>1,764,430</b>	<b>1,372,650</b>	<b>3,907,378</b>	<b>4,308,042</b>	<b>4,745,482</b>	<b>5,222,683</b>	<b>6,077,880</b>

## 13 KEY ASSUMPTIONS

### 13.1 Operating Cost Assumptions

Description	Details
Transportation Expenses	2% of Sales
Depreciation Method	Straight Line
Depreciation Rate	20% on Green Shade Net 100% on Polythene Sheet
Operating Cost Growth Rate	10%

### 13.2 Production Cost Assumptions

Description	Details
No of Plants Per Acre	12,000
Pesticide Sprays	Rs. 45,000 / Year
Fertilizers	Rs. 35,000 / Year
Water	Rs. 80,000 / Year
Weeding	Rs. 40,000 / Year
Electricity Cost	Rs. 9,000 per month
Packing and Handling Cost	Rs. 0.20 / Cut Flower
Input Cost Growth Rate	10%

### 13.3 Revenue Assumptions

Description	Details
Growth in Sale Price	10%
Production Capacity in First Year	40%
Percentage Increase in Production Capacity every Year	20%
Maximum Production Capacity	80%
Production Loss (Petals)	20% of Production

### 13.4 Financial Assumptions

Description	Details
Debt	50%
Equity	50%

Interest Rate on Debt	12%
Debt Tenure	5 Years
Debt Payment / Year	1

# Small and Medium Enterprises Development Authority

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