

# Pre-feasibility Study STRAWBERRY CULTIVATION

June 2022

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, andrevenues 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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# **Document Control**



# 2 EXECUTIVE SUMMARY

Strawberry is the most widely adapted of the small fruits. According to agricultural experts it has huge dietetic value and one of the potential sources of protein, carbohydrates, fats and vitamins. In Pakistan it is consumed in fresh form as well as in processed form for making jams, jellies, squashes and it is also exported to different countries in frozen condition.

In Pakistan strawberry is being cultivated successfully in plains of Ghotki, Panu Akil, Ranipur, Shaheed Benazirabad, Gilgit Chitral, Kaghan Kohistan, Swat, Mingora, Multan, Narowal, Bhawalpur, Chishtian, Sialkot, Faisalabad and many other areas of Pakistan.

Capacity; Production capacity **18 tons** per **05 Acres** with **100%** capacity utilization.

Total Cost Estimates is **Rs. 1,274,625** with fixed investment **Rs. 230,000** and working capital **Rs. 1,044,625**.

Given the cost assumptions IRR and payback are **41%** and **2.5 years** respectively

The most critical considerations or factors for success of the project are:

- Most significant consideration(s)
  - Fertile land and its maintenance during the period of cultivation.
  - Special attention towards healthy and certified seeds, land preparation, sowing pattern, water management, fertilizer application and marketing is required.
  - Timely control of pests, diseases and implementation of all recommended agronomics measures.
  - Appropriate post-harvest arrangement for washing, grading, packing and transportation of product to the market.
- Equally important factor(s)
  - Proper soil analysis for determining soil nutritional level.
  - Farming should be done scientific grounds, taking care of input requirements and pest management techniques.



# **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 **Strawberry Cultivation** 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 it's 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

The proposed project is a medium size strawberry farming unit, over a land area of five acres. The approximate total time from land preparation to harvesting is around 06 months.

Main varieties of strawberries cultivated in Pakistan are: Chandelier, Corona, Douglas, Tufts, Gorella and Toro. Strawberry requires a well-drained medium loam soil, rich in organic matter. The soil should be slightly acidic with pH from 5.8-6.5. At higher pH root formation is poor. The presence of excessive calcium in the soil causes yellowing of the leaves. Strawberry should not be cultivated in the same land for a number of years. It is preferable to plant it in green manure field. Alkaline soils and soils infected with nematodes should be avoided.

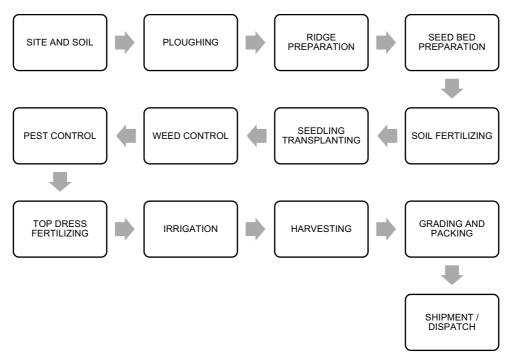
Initial cost for growing strawberry is estimated at Rs. 0.8 million. It is generally cultivated on ridges where 30,000 - 40,000 seedlings are transplanted. Seeds are mainly procured from Swat, Pashin and Mingora and are available at Rs 1.0-1.5 per plant. The estimated yield potential of the farm varies from 3-4 tons per acre.

Following key parameters must be addressed as per pre-feasibility study under preparation

- **Technology:** Generally, strawberry is cultivated on ridges at fertile soil with suitable drainage quality. For this purpose farm land of Indus basin is yielding fruitful results. Seedlings are transplanted on ridges and crop is irrigated on weekly or on need bases.
- Location: In Pakistan strawberry is being cultivated successfully in plains of Ghotki, Panu Akil, Ranipur, Shaheed Benazirabad, Gilgit Chitral, Kaghan Kohistan, Swat, Mingora, Multan, Narowal, Bhawalpur, Chishtian, Sialkot, Faisalabad and many other areas of Pakistan.
- **Product:** The proposed project would initially produce 18 tons of strawberry and will be sold to retailer and wholesellers in packed form.
- **Target Market:** The target customers will be wholesellers and retailers catering for household markets in Pakistan including local markets in Sukkur, Karachi, Hyderabad, and other districts of Sindh and Rahim Yar Khan in Punjab, different areas of Baluchistan and Khyber Pakhtunkhwa.
- Employment Generation: The proposed project will provide direct employment to 07 people (contractual + salaried). Financial analysis shows the unit shall be profitable from the very first year of operation



## 5.1 Production Process Flow



- Site and Soil: Strawberries will grow on all kinds of soils, ranging from light sands and gravels to clay, however they do benefit from being grown in raised beds on poor or heavy soils where the addition of organic matter will not only improve the soil but aid drainage.
- **Ploughing:** The first step for Strawberry cultivation is Ploughing. The primary purpose of ploughing is to turn over the upper layer of the soil, bringing fresh nutrients to the surface, while burying weeds and the remains of previous crops and allowing them to break down.
- **Ridge Preparation:** Strawberries can be cultivated on raised beds of 04-05 inch high in the center after firming down and 24 inch wide should be constructed. The ridge should have an even curve and the soil broken down to a fine tilth which have the following advantages over conventional growing:
  - 1) They reduce the risk of waterlogging and soil-borne diseases.
  - 2) They increase the available rooting depth on shallow soils.
  - 3) They warm up quickly and so produce early crops.
  - These advantages in turn lead to higher yields.
- Seed Bed Preparation: In next step Seed Bed is prepared. The soil of a seed bed needs to be loose and smoothed, without large lumps and are needed so that seeds can be planted easily, large lumps and uneven surface would tend to make the planting depth random.



- **Soil Fertilizing:** Fertilizers are sprinkled in next step. Plants need to be fertilized because most soil does not provide the essential nutrients required for optimum growth.
- **Seedling Transplanting:** Seeds are grown separately in pots into young plants, so they can then transplant into the cultivation land. The distance between the rows should be 30-36 inches and the distance between the plants should be 12-16 inches.
- Weed Control: Weeds are plants that grow where they are not wanted. Weeding keeps weeds from robbing valuable nutrients from the soil and competing with desired flowers, vegetables, herbs and shrubs. Weeds can also shelter harmful insects and diseases.
- **Pest Control:** Insects can be controlled by preventive measures more easily than the use of chemicals, rotation of strawberry with other crops is useful in controlling insects.
- **Top Dress Fertilizing:** In order to get maximum benefit from manures and fertilizers, they should not only be applied in proper time and in right manner but any other aspects should also be given careful consideration. Different soils react differently with fertilizer application, the nutrient requirements are not the same at different stages of growth.
- **Irrigation:** Since strawberry is relatively shallow-rooted, it is susceptible to conditions of drought. It is necessary to ensure that newly planted runners are irrigated frequently after planting, otherwise the mortality of the plants become high.
- Harvesting: Strawberries are ready for picking when the fruits develops color to that shade of red which is characteristic of that particular variety. They are best picked at this stage for eating fresh, freezing and making into jam; they will keep very satisfactorily for forty-eight hours in a domestic refrigerator at a temperature of 2°C (35°F).
- **Grading and Packing:** Strawberries are then sorted into grades according to their quality and packed accordingly. They should only be picked into shallow containers, because by using deeper ones, the lower fruits will be bruised by the weight of fruit above pressing down on them.
- Shipment / Dispatch: Strawberries are highly perishable and hence a great deal of care in handling and marketing also requires to be organized carefully. Usually the fruit is packed in the early morning and sent to the market in the afternoon of the same day or is picked in the late afternoon, stored overnight in a cool place, and sent to the market the following morning.



## 5.2 Installed and Operational Capacities

The operational capacity of this farm of 05 acres is 18 tons per year including 10% wastage. The assumed operational capacity during the first year of operations is 100%.

# 6 CRITICAL FACTORS

The main critical success factors that affect the decision to invest in the proposed business setup are:

- Fertile land and its maintenance during the period of cultivation.
- Special attention towards healthy and certified seeds, land preparation, sowing pattern, water management, fertilizer application and marketing is required.
- Timely control of pests, diseases and implementation of all recommended agronomics measures.
- Appropriate post-harvest arrangement for washing, grading, packing and transportation of product to the market.
- Use of high quality hybrid seeds.
- Proper soil analysis for determining soil nutritional level.
- Farming should be done scientific grounds, taking care of input requirements and pest management techniques.

# 7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

In Pakistan strawberry is being cultivated successfully in plains of Ghotki, Panu Akil, Ranipur, Shaheed Benazirabad, Gilgit Chitral, Kaghan Kohistan, Swat, Mingora, Multan, Narowal, Bhawalpur, Chishtian, Sialkot, Faisalabad and many other areas of Pakistan.

# 8 POTENTIAL TARGET CUSTOMERS / MARKETS

Strawberry is high nutritious fruit and is used in medicines, juices, and various food items. In addition to local markets in Sukkur, Karachi, Hyderabad, and other districts of Sindh and Rahim Yar Khan in Punjab etc.

# 9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of this project. Various costs and revenue related assumptions along with results of the analysis are outlined in this section.



## 9.1 **Project Economics**

All the figures in this financial model have been calculated for estimated sales of Rs. 2.4 million in the year one. The capacity utilization during year one is worked out at 100 %.

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

Table 9.1: Project Economics

| Description                   | Details   |
|-------------------------------|-----------|
| Internal Rate of Return (IRR) | 41%       |
| Payback Period (yrs.)         | 2.5       |
| Net Present Value (Rs.)       | 1,070,983 |

## 9.2 Project Financing

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

### Table 9.2: Project Financing

| Description         | Details      |
|---------------------|--------------|
| Total Equity (100%) | Rs.1,274,625 |

## 9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business:

#### Table 9.3: Project Cost

| Description                | Amount Rs. |  |  |  |
|----------------------------|------------|--|--|--|
| Capital Cost               |            |  |  |  |
| Farm Utensils              | 40,000     |  |  |  |
| Furniture & Fixture        | 45,000     |  |  |  |
| Office Equipment           | 45,000     |  |  |  |
| Office Renovation          | 50,000     |  |  |  |
| Pre-operating Cost         | 50,000     |  |  |  |
| Total Capital Cost         | 230,000    |  |  |  |
| Working Capital (3 Months) |            |  |  |  |



| Raw Material Inventory | 566,125   |
|------------------------|-----------|
| Land Lease             | 37,500    |
| Office Rent            | 60,000    |
| Utilities              | 96,000    |
| Salaries               | 195,000   |
| Misc. Expenses         | 90,000    |
| Total Working Capital  | 1,044,625 |
| Total Project Cost     | 1,274,625 |

## 9.4 Space Requirement

The space requirement for the proposed Strawberry Cultivation is estimated considering office are and land for cultivation. Details of space requirement and cost related to land & building is given below:

| Description                              | Size/Area  | Rent Charges | Season Rent |
|--|------------|--------------|-------------|
| Office & Godown Area<br>(at Farm)        | 500 sq.ft. | 20,000       | 120,000     |
| Land for Cultivation (Leased for season) | 5 acre     | 30,000       | 150,000     |
| Total                                    |            |              | 270,000     |

#### **Table 9.4: Space Requirement**

## 9.5 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below:

## Table 9.5: Machinery & Equipment

| Description   | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|---------------|----------|--------------------|---------------------|
| Farm Utensils | 01       | 40,000             | 40,000              |
| Total         |          |                    | 40,000              |

## 9.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below:



| Description               | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|---------------------------|----------|--------------------|---------------------|
| Tables & Chairs for Owner | 1        | 20,000             | 20,000              |
| Tables & Chairs for Staff | 1        | 15,000             | 15,000              |
| Waiting Chairs (Plastic)  | 4        | 1,250              | 5,000               |
| Chairs for Worker / Labor | 4        | 1,250              | 5,000               |
| Total                     |          |                    | 45,000              |

# Table 9.6: Furniture & Fixture

## 9.7 Office Equipment Requirement

Following office equipment will be required for Strawberry Cultivation:

| Description    | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|----------------|----------|--------------------|---------------------|
| Telephone sets | 02       | 2,500              | 5,000               |
| UPS & Battery  | 1        | 40,000             | 40,000              |
| Total          |          |                    | 45,000              |

#### Table 9.7: Office Equipment

#### 9.8 Raw Material Requirement

Following raw material will be required for Strawberry Cultivation for one acre:

#### Table 9.8: Raw Material Requirement

| Description (Requirement / Acre)      | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|---------------------------------------|----------|--------------------|---------------------|
| Seed                                  | 40,000   | 2.00               | 80,000              |
| Fertilizer (1 Bag per Acre) 50 Kg bag | 6        | 2,350              | 14,100              |
| DAP                                   | 6        | 9,000              | 54,000              |
| Packing Cost (Half Kg Box)            | 8,000    | 15                 | 120,000             |
| Pesticide (Spray)                     | 4        | 1,200              | 4,800               |
| Labor Cost / Season                   | 5        | 24,000             | 120,000             |



| (Daily Wages basis)        |    |       |         |
|----------------------------|----|-------|---------|
| Diesel for Tractor (Hours) | 16 | 3,000 | 48,000  |
| Total                      |    |       | 452,900 |

For this project raw material cost for 05 acres will be Rs. 2,264,500 to produce 18 tons of strawberry.

#### 9.9 Human Resource Requirement

In order to run operations of Strawberry Cultivation smoothly, details of human resources required along with number of employees and monthly salary are recommended as under:

| Description     | No. of<br>Employees | Monthly<br>Salary per<br>person (Rs) | Annual Salary<br>(Rs) |
|-----------------|---------------------|--------------------------------------|-----------------------|
| Owner / Manager | 01                  | 35,000                               | 420,000               |
| Helper          | 01                  | 25,000                               | 300,000               |
| Total           | 02                  |                                      | 720,000               |

## Table 9.9: Human Resource Requirement

#### 9.10 Revenue Generation

Based on the capacity utilization of 100 % for cultivation of Strawberry at 05 acres, average sales revenue during the first year of operations is estimated as under:

| Description | No. of Units<br>Produced<br>(Tons.) | Sale Price /<br>Ton<br>(Rs.) | Sale Revenue<br>(Rs.) |
|-------------|-------------------------------------|------------------------------|-----------------------|
| Strawberry  | 18                                  | 210,000                      | 3,780,000             |
| Total       | 18                                  | 210,000                      | 3,780,000             |

#### Table 9.10: Revenue Generation – Year 1

#### 9.11 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity and water. The electricity expenses are estimated to be around Rs. 10,000 per month, whereas, water expenses are estimated to be Rs. 15,000 per month. Furthermore, selling and



distribution expense being essential for Strawberry Cultivation is estimated as 3% of Net Sales.

# **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 Machinery Suppliers**

| Name of Supplier | New Chaudhary Agricultural Mechanical Engineers |  |  |  |  |  |  |
|------------------|---|--|--|--|--|--|--|
| Address          | Chowk A.T.M. Vehari Road, Multan                |  |  |  |  |  |  |
| Phone            | +92-61-36527607                                 |  |  |  |  |  |  |
|                  | Machinery Supplier - 2                          |  |  |  |  |  |  |
| Name of Supplier | Agrotractors (PVT) LTD                          |  |  |  |  |  |  |
| Address          | 38-A, MAIN GULBERG, Lahore                      |  |  |  |  |  |  |
| Phone            | +92-42-35871746                                 |  |  |  |  |  |  |

# Machinery Supplier - 1

## **10.2 Raw Material Suppliers**

## **Raw Material Supplier - 1**

| Name of Supplier | Mr Sidique  |
|------------------|---|
| Address          | Akber Village Chikri, Tehsil Khuwaza Khela, Swaat |
| Phone            | 03464606053                                       |
|                  | Raw Material Supplier - 2                         |
| Name of Supplier | Mr Farman Ali                                     |
| Address          | Fatehpur Choki, Tehsil Khuwaza, Swat              |

Phone

03459534261

# **10.3 Technical Experts / Consultants**

|                                 | Technical Experts / Consultants - 1  |  |  |  |  |
|---------------------------------|--|--|--|--|--|
| Name of Expert<br>/Organization | Altaf Ahmed / Strawberry Farmer  |  |  |  |  |
| Address                         | Village Raza Ghoth, Taluka Pano Akil, District Sukkur  |  |  |  |  |
| Phone                           | 0300-3261039   |  |  |  |  |
|                                 | Technical Experts / Consultants - 2  |  |  |  |  |
| Name of Expert<br>/Organization | Saeed Ahmed  |  |  |  |  |
| Address                         | Agriculture Officer, Sukkur  |  |  |  |  |
| Phone                           | 0300-3150358   |  |  |  |  |
|                                 | Technical Experts / Consultants - 3  |  |  |  |  |
| Name of Expert<br>/Organization | Dr. M. Aslam Parvez  |  |  |  |  |
| Address                         | Institute of Horticultural Sciences, Faculty of Agriculture,<br>University of Agriculture, Faisalabad. |  |  |  |  |
| Phone                           | +92-41-9201281   |  |  |  |  |



# 11 USEFUL WEB LINKS

| Small & Medium Enterprises Development Authority (SMEDA)                    | www.smeda.org.pk             |
|---|------------------------------|
| Government of Pakistan  | www.pakistan.gov.pk          |
| Ministry of Industries & Production   | www.moip.gov.pk              |
| Ministry of Education, Training & Standards in Higher Education             | http://moptt.gov.pk          |
| Government of Punjab  | www.punjab.gov.pk            |
| Government of Sindh   | www.sindh.gov.pk             |
| Government of Khyber Pakhtunkhwa  | www.khyberpakhtunkhwa.gov.pk |
| Government of Balochistan   | www.balochistan.gov.pk       |
| Government of Gilgit Baltistan  | www.gilgitbaltistan.gov.pk   |
| Government of Azad Jamu Kashmir   | www.ajk.gov.pk               |
| Trade Development Authority of Pakistan (TDAP)                              | www.tdap.gov.pk              |
| Security Commission of Pakistan (SECP)                                      | www.secp.gov.pk              |
| Federation of Pakistan Chambers of Commerce and Industry (FPCCI)            | www.fpcci.com.pk             |
| State Bank of Pakistan (SBP)  | www.sbp.org.pk               |
| Punjab Small Industries Corporation   | www.psic.gop.pk              |
| Sindh Small Industries Corporation  | www.ssic.gos.pk              |
| Pakistan Horticulture Development and Export Company (PHDEC)                | www.phdec.org.pk             |
| Punjab Vocational Training Council (PVTC)                                   | www.pvtc.gop.pk              |
| Technical Education and Vocational Training Authority (TEVTA)               | www.tevta.org                |
| Pakistan Readymade Garment Technical Training Institute                     | www.prgmea.org/prgtti/       |
| Livestock & Dairy Development Department, Government of Punjab.             | www.livestockpunjab.gov.pk   |
| Punjab Industrial Estates (PIE)   | www.pie.com.pk               |
| Faisalabad Industrial Estate Development and Management<br>Company (FIEDMC) | www.fiedmc.com.pk            |
|   | •                            |



# **12 ANNEXURES**

#### 12.1 Income Statement

| FODDER Production & Trading Business            |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Projected Income Statement (Rs.)                | Year 1             | Year 2             | Year 3             | Year 4             | Year 5             | Year 6             | Year 7             | Year 8             | Year 9             | Year 10            |
| Net (Adjusted Sales)                            | 3,780,000          | 4,082,400          | 4,408,992          | 4,761,711          | 5,142,648          | 5,554,060          | 5,998,385          | 6,478,256          | 6,996,516          | 7,556,237          |
| Cost of Sales                                   | 2,696,500          | 2,884,115          | 3,085,031          | 3,300,210          | 3,530,685          | 3,777,566          | 4,042,045          | 4,325,402          | 4,629,013          | 4,954,358          |
| Cultivation Cost                                | 2,264,500          | 2,423,015          | 2,592,626          | 2,774,110          | 2,968,298          | 3,176,078          | 3,398,404          | 3,636,292          | 3,890,833          | 4,163,191          |
| Cultivation Land Rent<br>Direct Utility Expense | 150,000<br>282,000 | 165,000<br>296,100 | 181,500<br>310,905 | 199,650<br>326,450 | 219,615<br>342,773 | 241,577<br>359,911 | 265,734<br>377,907 | 292,308<br>396,802 | 321,538<br>416,642 | 353,692<br>437,475 |
| Gross Profit                                    | 1,083,500          | 1,198,285          | 1,323,961          | 1,461,501          | 1,611,963          | 1,776,494          | 1,956,340          | 2,152,854          | 2,367,503          | 2,601,880          |
| Gross Profit Margin                             | 29%                | 29%                | 30%                | 31%                | 31%                | 32%                | 33%                | 33%                | 34%                | 34%                |
| General Administrative & Selling Expenses       |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Salaries  | 390,000            | 429,000            | 471,900            | 519,090            | 570,999            | 628,099            | 690,909            | 760,000            | 836,000            | 919,600            |
| Office Rent                                     | 120,000            | 132,000            | 145,200            | 159,720            | 175,692            | 193,261            | 212,587            | 233,846            | 257,231            | 282,954            |
| Amortization of Preliminary Expenses            | 10,000             | 10,000             | 10,000             | 10,000             | 10,000             | -                  | -                  | -                  | -                  | -                  |
| Depreciation Expense                            | 18,000             | 16,200             | 14,580             | 13,122             | 11,810             | 10,629             | 9,566              | 8,609              | 7,748              | 6,974              |
| Maintenance Expense                             | 400                | 440                | 484                | 532                | 586                | 644                | 709                | 779                | 857                | 943                |
| Selling & Distribution                          | 113,400            | 122,472            | 132,270            | 142,851            | 154,279            | 166,622            | 179,952            | 194,348            | 209,895            | 226,687            |
| Subtotal  | 651,800            | 710,112            | 774,434            | 845,316            | 923,366            | 999,255            | 1,093,722          | 1,197,582          | 1,311,732          | 1,437,157          |
| Operating Income                                | 431,700            | 488,173            | 549,527            | 616,185            | 688,597            | 777,239            | 862,618            | 955,271            | 1,055,771          | 1,164,723          |
| Financial Charges                               | -                  | -                  | -                  | -                  | -                  |                    |                    |                    |                    | -                  |
| Earnings Before Taxes                           | 431,700            | 488,173            | 549,527            | 616,185            | 688,597            | 777,239            | 862,618            | 955,271            | 1,055,771          | 1,164,723          |
| Тах   | 43,170             | 48,817             | 54,953             | 61,619             | 68,860             | 39,086             | 51,893             | 65,791             | 80,866             | 97,208             |
| Net Profit                                      | 388,530            | 439,356            | 494,574            | 554,567            | 619,737            | 738,153            | 810,725            | 889,481            | 974,906            | 1,067,514          |
| Monthly Profit After Tax                        | 32,378             | 36,613             | 41,215             | 46,214             | 51,645             | 61,513             | 67,560             | 74,123             | 81,242             | 88,960             |



## 12.2 Balance Sheet

| FODDER Production & Trading Business |           |           |           |           |           |   |           |           |           |           |           |
|--------------------------------------|-----------|-----------|-----------|-----------|-----------|---|-----------|-----------|-----------|-----------|-----------|
| Projected Balance Sheet (Rs.)        | Year 0    | Year 1    | Year 2    | Year 3    | Year 4    | Year 5                                  | Year 6    | Year 7    | Year 8    | Year 9    | Year 10   |
| Assets                               |           |           |           |           |           |   |           |           |           |           |           |
| Current Assets                       |           |           |           |           |           |   |           |           |           |           |           |
| Cash & Bank Balance                  | 478,500   | 1,272,447 | 1,724,793 | 2,229,813 | 2,792,378 | 3,417,743                               | 4,149,210 | 4,950,974 | 5,829,240 | 6,790,682 | 7,842,473 |
| Raw Material Inventory               | 566,125   | 188,708   | 201,918   | 216,052   | 231,176   | 247,358                                 | 264,673   | 283,200   | 303,024   | 324,236   | 346,933   |
| Finished Goods                       |           | 0         | 0         | 0         | 0         | 0                                       | 0         | 0         | 0         | 0         | 0         |
| Accounts Receivable                  | 0         | 0         | 0         | 0         | 0         | 0                                       | 0         | 0         | 0         | 0         | 0         |
| Total Current Assets                 | 1,044,625 | 1,461,155 | 1,926,711 | 2,445,865 | 3,023,554 | 3,665,101                               | 4,413,883 | 5,234,174 | 6,132,264 | 7,114,918 | 8,189,406 |
| Fixed Assets                         |           |           |           |           |           |   |           |           |           |           |           |
| Plant Machinery & Facility           | 40,000    | 36,000    | 32,400    | 29,160    | 26,244    | 23,620                                  | 21,258    | 19,132    | 17,219    | 15,497    | 13,947    |
| Factory Construction                 | 50,000    | 45,000    | 40,500    | 36,450    | 32,805    | 29,525                                  | 26,572    | 23,915    | 21,523    | 19,371    | 17,434    |
| Furniture & Fixtures                 | 90,000    | 81,000    | 72,900    | 65,610    | 59,049    | 53,144                                  | 47,830    | 43,047    | 38,742    | 34,868    | 31,381    |
| Total Fixed Assets                   | 180,000   | 162,000   | 145,800   | 131,220   | 118,098   | 106,288                                 | 95,659    | 86,093    | 77,484    | 69,736    | 62,762    |
| Intangible Assets                    |           |           |           |           |           |   |           |           |           |           |           |
| Preliminary Expenses                 | 50,000    | 40,000    | 30,000    | 20,000    | 10,000    | -                                       | -         | -         | •         | -         | -         |
| Total Assets                         | 1,274,625 | 1,663,155 | 2,102,511 | 2,597,085 | 3,151,652 | 3,771,389                               | 4,509,543 | 5,320,268 | 6,209,748 | 7,184,654 | 8,252,168 |
| Owner's Equity                       | 1,274,625 | 1,663,155 | 2,102,511 | 2.597.085 | 3,151,652 | 3,771,389                               | 4,509,543 | 5,320,268 | 6,209,748 | 7.184.654 | 8,252,168 |
| • •                                  |           |           |           |           |           | , |           |           |           |           |           |
| Long Term Liability                  | 0         | 0         | 0         | 0         | 0         | 0                                       | 0         | 0         | 0         | 0         | 0         |
| Fotal Equity & Liabilities           | 1,274,625 | 1,663,155 | 2,102,511 | 2,597,085 | 3,151,652 | 3,771,389                               | 4,509,543 | 5,320,268 | 6,209,748 | 7,184,654 | 8,252,168 |



## 12.3 Cash Flow Statement

| FODDER Production & Trading Business    |           |           |           |           |           |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Projected Statement of Cash Flows (Rs.) | Year 0    | Year 1    | Year 2    | Year 3    | Year 4    | Year 5    | Year 6    | Year 7    | Year 8    | Year 9    | Year 10   |
| Cash Flow From Operating Activities     |           |           |           |           |           |           |           |           |           |           |           |
| Net Profit                              | 0         | 388,530   | 439,356   | 494,574   | 554,567   | 619,737   | 738,153   | 810,725   | 889,481   | 974,906   | 1,067,514 |
| Add: Depreciation Expense               | 0         | 18,000    | 16,200    | 14,580    | 13,122    | 11,810    | 10,629    | 9,566     | 8,609     | 7,748     | 6,974     |
| Amortization Expense                    | 0         | 10,000    | 10,000    | 10,000    | 10,000    | 10,000    | -         | -         | -         | -         | -         |
| (Increase) / decrease in RM             |           | 377,417   | -13,210   | -14,134   | -15,124   | -16,182   | -17,315   | -18,527   | -19,824   | -21,212   | -22,697   |
| (Increase) / decrease in FG Inventory   |           | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| (Increase) / decrease in Receivables    | -         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Net Cash Flow From Operations           | 0         | 793,947   | 452,346   | 505,020   | 562,565   | 625,365   | 731,467   | 801,764   | 878,266   | 961,442   | 1,051,791 |
| Cash Flow From Financing Activities     |           |           |           |           |           |           |           |           |           |           |           |
| Receipt of Long Term Debt               | 0         |           |           |           |           |           |           |           |           |           |           |
| Repayment of Long Term Debt             |           | 0         | 0         | 0         | 0         | 0         | 0         | 0         |           | -         | -         |
| Owner's Equity                          | 1,274,625 |           |           |           |           |           |           |           |           |           |           |
| Net Cash Flow From Financing Activities | 1,274,625 | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Cash Flow From Investing Activities     |           |           |           |           |           |           |           |           |           |           |           |
| Capital Expenditure                     | (40,000)  |           |           |           |           | 0         |           |           |           |           | 0         |
| Factory/Office Furniture                | (90,000)  |           |           |           |           |           |           |           |           |           |           |
| Preliminary Operating Expenses          | (50,000)  |           |           |           |           |           |           |           |           |           |           |
| Office Renovation Cost                  | (50,000)  |           |           |           |           |           |           |           |           |           |           |
| Purchase of RM                          | (566,125) |           |           |           |           |           |           |           |           |           |           |
| Net Cash Flow From Investing Activities | (796,125) | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| NET CASH FLOW                           | 478,500   | 793,947   | 452,346   | 505,020   | 562,565   | 625,365   | 731,467   | 801,764   | 878,266   | 961,442   | 1,051,791 |
|   |           |           |           |           |           |           |           |           |           |           |           |
| Cash at the Beginning of the Period     | 0         | 478,500   | 1,272,447 | 1,724,793 | 2,229,813 | 2,792,378 | 3,417,743 | 4,149,210 | 4,950,974 | 5,829,240 | 6,790,682 |
| Cash at the End of the Period           | 478,500   | 1,272,447 | 1,724,793 | 2,229,813 | 2,792,378 | 3,417,743 | 4,149,210 | 4,950,974 | 5,829,240 | 6,790,682 | 7,842,473 |



# **13 KEY ASSUMPTIONS**

## **13.1 Factory Operations and Capacity Utilization Assumptions**

| Description                     | Details  |
|---------------------------------|----------|
| Increase in Production (Annual) | 0%       |
| Annual sales price increase     | 8%       |
| Operational Hrs./day            | 12 Hrs   |
| Operational Days / Month        | 26 Days  |
| Operational Months              | 6 Months |
| Annual Operational Days         | 156 Days |

# **13.2 Economy Related Assumptions**

| Description                   | Details |
|-------------------------------|---------|
| Utilities growth rate Charges | 10%     |
| Increase in Salaries          | 10%     |
| Increase in Office Rent       | 10%     |
| Income Tax Rate               | 10%     |

# **13.3 Cash Flow Assumptions**

| Description                        | Details |
|------------------------------------|---------|
| Sales on Credit - as %age of total | 0%      |
| Sales on Cash - as %age of total   | 100%    |

# **13.4 Production Assumptions**

| Description | Details       |
|-------------|---------------|
| Ready Crop  | 04 Ton / Acre |
| Wastage     | 10%           |



| Cultivation Land | 5 Acre |
|------------------|--------|
| Sale             | 100%   |
| Crop in a Year   | 1 Crop |

# 13.5 Other Assumptions

| Description   | Details |
|---|---------|
| Depreciation  | 10%     |
| Machinery Annual Repair & Maintenance<br>(as percentage of total cost of Machinery) | 01%     |
| Selling & Distribution Expenses   | 03%     |
| Increase in Cost Price  | 07%     |



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| 3 <sup>rd</sup> Floor, Building No. 3, | 5 <sup>TH</sup> Floor, Bahria | Ground Floor              | Bungalow No. 15-A         |
| Aiwan-e-Iqbal Complex,                 | Complex II, M.T. Khan Road,   | State Life Building       | Chaman Housing Scheme     |
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