**PROJECT PROFILE FOR COIR PITH GROW BAG MAKING UNIT**

**PRODUCT : COIR PITH GROW BAG**

**PRODUCTION CAPACITY (P.A)**

**(100% CAPACITY) : 448 TONS**

**VALUE : RS.156.80LAKHS**

**MONTH & YEAR OF PREPARATION : JUNE 2018**

**PREPARED BY : COIR BOARD, MINISTRY OF MSME,**

 **GOVT OF INDIA**

* **INTRODUCTION**

Coir pith is a very light and compressible material. It is highly hygroscopic and has good water holding properties. It is widely used in soft-fruit production and other horticultural crops as a soil conditioner, surface mulch/rooting medium and desiccant. Application of coir pith in soil helps in improving the structure and other physical and chemical properties of the soil. Coir pith improves the physical properties such as bulk density, pore space, infiltration rate and hydraulic conductivity of even the heaviest clay soils and allows free drainage when coir pith is incorporated as an ameliorant. Because of its sponge like structure, coir pith helps to retain water and improve aeration in root zone.

* **PROCESS OF MANUFACTURE**

Coir pith grow bags are manufactured by blending coir pith with adequate quantity of short coir fibre. This is then compressed and packed loosely in a UV stabilized black and white polythene bag. At the user end suitable holes are to be cut for planting as well as for drainage. Coir pith grow bags enable to enjoy delicious crop such as tomatoes, strawberries and cucumbers. The bags are ready to use as planting containers. Simply transplant plants into the coir pith grow bags during the planting season.

 **Specifications**

* Weight 350 g +/- 30g
* Size 100 x 18 x 13 cm
* Compression ratio 5:1
* Moisture content less than 20%
* Electrical Conductivity less than 0.65 millimhos/cm

**BASIS AND PRESUMTIONS**

* The Project Profile is based on 8 working hours for1shift in a day and 200 days in a year and the Break Even efficiency has been calculated on 70%, 80%, 90%, 90% and 100% capacity utilization.
* The rate of interest both for fixed asset and working capital have been taken as 12.5% p.a.
* **TECHNICAL ASPECTS**

Installed Production capacity per day : 1120 grow bag (2kg)

Number of Shift per day : 1

Working days p.a : 200 days

Capacity Utilization

-First year : 70%

-Second year : 75%

-Third year : 80%

-Fourth year : 90%

-Fifth year : 100%

Rate of Average Sales Realization : Rs. 70 per bag

Rate of Average cost of raw material : Rs.8000 per ton of raw

 pith

Interest on term Loan : 12.50%

Interest on working capital : 12.50%

**Manpower requirement**

Supervisor : 1

 Unskilled worker : 20

* **FINANCIAL ASPECTS**

**i) Cost of Project**

 **Amount**

* Land : Lease/owned
* Building : Lease/owned
* Machinery &Equipments : Rs.2013000/-
* Working Capital : Rs. 487000/-

 **------------------- Total : Rs. 2500000/-**

|  |  |  |
| --- | --- | --- |
| **Sl.****No** | **Description of machines &equipments** | **Qty** |
| 1 | Hydraulic grow bag machine 30 HP | 1 |
| 2 | Screener 2 HP | 1 |
| 3 | De -Stoner 8 HP | 1 |
| 4 | Sewing machine  | 1 |
| 5 | Weighing scale | 1 |
| 6 | Pallet corner  | 4 |
| 7 | Cooling tower | 1 |
| 8 | Miscellaneous equipments such as Table, pump set etc |  |
| **Total** | Rs.2013000/- |

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**ii) Means of Finance**

* Promoters Capital 5% : Rs. 125000/-
* Bank Term loan 95% : Rs.1912000/-
* WC Loan from Bank 95% : Rs. 463000/- -------------------

**Total : Rs.854000/-**

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**DETAILS OF THE PROFITABILITY OF THE PROJECT**

Rs.in Lakhs

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** |  | **1** | **2** | **3** | **4** | **5** |
| Installed Production capacity per day |  | 1120 | 1120 | 1120 | 1120 | 1120 |
| Number of shift/day |  | 1 | 1 | 1 | 1 | 1 |
| Working days per annum |  | 200  | 200  | 200  | 200  | 200  |
| Installed production capacity per annum |  | 224000 | 224000 | 224000 | 224000 | 224000 |
| Capacity utilization |  | 70% | 75% | 80% | 90% | 100% |
| Annual production quantity |  | 156800 | 168000 | 179200 | 201600 | 224000 |
| **Annual Sales Realization** | *Rs. 35,000*  | 109.76  | 117.60  | 125.44  | 141.12  | 156.80  |
| Cost of Production  |
| **Raw material requirement** |  | 439.04  | 470.40  | 501.76  | 564.48  | 627.20  |
| Cost of raw material | Rs.8,000  | 35.12  | 37.63  | 40.14  | 45.16  | 50.18  |
| Repairs and Maintenance | 2.00% | 0.40  | 0.48  | 0.58  | 0.70  | 0.83  |
| Power cost |  | 3.73  | 3.99  | 4.26  | 4.79  | 5.32  |
| Cost of Bag |  Rs.7500  | 33.60  | 36.00  | 38.40  | 43.20  | 48.00  |
| Wages & salary |  | 17.81  | 19.08  | 20.35  | 22.90  | 25.44  |
| **Cost of Production** |  | **90.66**  | **97.19**  | **103.73**  | **116.74**  | **129.77**  |
| **Gross Profit** |  | **19.1** | **20.41** | **21.71** | **24.38** | **27.03** |
| Administrative & selling expenses | 2.00% | 2.20  | 2.35  | 2.51  | 2.82  | 3.14  |
| Rent |  | 2.40  | 2.40  | 2.40  | 2.40  | 2.40  |
| Interest on Term Loan |  | 2.00  | 2.12  | 1.76  | 0.63  | 0.27  |
| Interest on Working capital |  | 0.58  | 0.58  | 0.58  | 0.58  | 0.58  |
| Depreciation of machinery |  | 2.01  | 2.01  | 2.01  | 2.01  | 2.01  |
| **Total** |  | **9.19** | **9.46** | **9.26** | **8.44** |  **8.4** |
| **Net Profit** |  | **9.91** | **10.95** | **12.44** | **15.94** | **18.63** |

**ESTIMATION OF BREAK EVEN POINT**

 Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
| Capacity utilization | 70% | 75% | 80% | 90% | 100% |
| Break-even point | 48% | 46% | 43% | 35% | 31% |
| Break even Production  | 151  | 156  | 153  | 140  | 139  |

* **DEBT SERVICE COVERAGE RATIO**

Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
| Capacity utilization | 70% | 75% | 80% | 90% | 100% |
| DSCR | 4.06 | 3.03 | 3.51 | 5.33 | 6.68 |
| Average DSCR | 4.52 |  |  |  |  |
| DSCR weighted average | 4.31 |  |  |  |  |

* **WORKING CAPITAL REQUIREMENTS**

Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
| Capacity utilization | 70% | 75% | 80% | 90% | 100% |
| Variable Cost | 90.66 | 97.19 | 103.73 | 116.74 | 129.77 |
| Fixed Cost | 9.19 | 9.46 | 9.26 | 8.44 | 8.4 |
| Working capital Gap | 4.87 | 5.24 | 5.61 | 6.33 | 7.05 |