



ORNAMENTAL PLANT NURSERY

Introduction

A nursery is a place where plants are propagated and grown to usable size. Nurseries are broadly classified on the basis of production and types of sale like fruits nurseries, medicinal plant nurseries, forest nurseries, vegetable plant nurseries, ornamental plant nurseries, etc. Selection of type of nursery depends upon market scenario and demand of surrounding area. Ornamental plants are the plants that are grown for decorative purposes in gardens and landscape design projects, house plants and for cut flowers and specimen display. These plants grab everyone's attention due to their attractive color, beautiful design and mesmerizing looks. Ornamental plants are a fundamental piece of indoor and outside decoration. These plants have long life and don't decay in short span of time.

Here's the list of most demanding ornamental plants – Snake plant, Money plant, The lucky bamboo plant, Aloe Vera, peace lily, Ferns, Grape Ivy, Areca palm, Spider plant, Baby rubber plant, Weeping fig, Flamingo lily, Croton, Lady's spider's orchid, Yucca etc. From the plants named above, **the plants taken here for preparation of model DPR are Money plant, Lucky bamboo plant, Snake plant, Yucca, Baby rubber plant, Croton and Areca palm.**

Market Potential

The main purpose of establishing such nurseries is to contribute towards the agricultural sector and the economy as a whole. The worldwide fancy plant market came to a market valuation i.e., poised to grow by \$ 28.98 billion during 2020-2024, processing at a CAGR of 6%. Decorative plants have been utilized in structures to praise inside and open-air foundation. The ornamental plants are developed explicitly for decorations, instead of food or raw materials. The utilization of blossoms and plants for beautifying and stylish purposes has been instrumental in driving the development of the market. Apart from this there are barriers also like the utilization of harmful chemicals may hamper market development. Notwithstanding, low per capita spending on ornamental plants in non-developing countries are expected to restrict the development of worldwide market. Significant expense of potted plants and plants from coordinated market when contrasted with un-coordinated market is another factor controlling the development of worldwide fancy plant market.

Product Uses

- These baby plants are used to further transplant the saplings or seedlings.
- Ornamental Plants increase the beauty of homes, offices, gardens and many other institutions.
- Ornamentals Plants are used as decoration materials in birthdays, marriages, ceremonies, reception, get together and farewells.
- We can earn a lot of foreign exchange by exporting ornamental plants, flowers, etc. to developed countries.
- Used in cosmetics, perfumes, and scent industry and food industry.
- They play essential role in improving the environment. For example, some ornamental trees have been formed to help prevent air pollution. They also provide shade and create a better micro- climate.

Assumptions

I. Model project has been prepared based on following assumptions:

- Land: 1 acre area of Land is owned. (Larger the area, higher is the profitability; since there is huge market potential for such plants thus marketing is not a problem)
- Area:
 - a. Proposed area for nursery rising (i.e., the mother plant bed) is 35000 sq. ft.
 - b. Other activities area is around 5000 sq. ft.
- Power: Power Consumption is negligible, hence a DG Set of 20 KVA power is included.
- Land Development: The Land development cost includes:
 - a. Farming Land preparation cost
 - b. Rain water Harvesting System
 - c. Storm Water Drainage Network
 - d. Boundary Bamboo Fencing
- Civil Works and Building: It includes:
 - a. 1 Greenhouse (for activities like- pot mixture preparation, for keeping fertilizers and manure, micronutrients for plants, etc.)
 - b. Office Area
 - c. Equipment Storage Area (for accessories)
 - d. Overhead Tent
- Mother plant bed preparation: Developing the mother bed area (35000 sq. ft.): 50 mother beds (11m * 1m) being size of each mother bed) with an internal walking space.
- Security: Provision for round the clock Security within the nursery.
- Preliminary and Preoperative period is 6 months.
- Principal Repayment and Interest on Term Loan: The principal amount has been repaid half-yearly and the interest on term loan has been charged quarterly.
- Working Capital in the form of KCC and interest on the same has been charged half-yearly.

II. Nursery Plants chosen for the DPR and its particulars:

Name of the Plant	Yearly Production (in units) in 35000 sq. ft.
Money plant	19600
Lucky bamboo plant	24500
Snake plant	14700
Spider Plant	17640
Yucca	8820
Baby rubber plant	19600
Croton (colourful Plant)	11025
Areca Palm	22050

NOTE: Ornamental plants are grown throughout the seasons. Thus, here we are not showing in which season to grow respective plants. As greenhouse has been provided here the purpose is to maintain required temperature and climatic condition for ornamental plants.

MONEY PLANT

It is called money plant simply because it is round, plum, flat leaves that might with a bit of imagination look like coin. The importance of money plant has made its way into Vaastu-shastra, emphasizing the significance of its placement. Money plants works as a natural air purifier that helps us improving your heath thereby providing us with the blessing of fresh air and good health. Well drained soil is what money plant requires. One should mix the soil with sand, organic compost or coco peat for making it more suitable for growing plant. When the seedlings are about two months old, they are ready for selling.



LUCKY BAMBOO PLANT

Lucky bamboo plant is not bamboo at all, is given as a gift of a good fortune as it looks like a bamboo, but it is much easier to grow as a houseplant. It is also known to enhance the flow of positive energy in the home and office when placed in right direction. It is said to create the sense of balance and safety in life.

Lucky bamboo plant can take about two months to grow from a small sprout to full size. It needs moderately moist soil that isn't excessively wet or dry.



SNAKE PLANT

Snake plant is also known as mother-in-law's tongue. Snake plant is extremely resistant and only needs very little light in order to make photosynthesis. Besides being able to remove toxins, the plant is great for keeping it in bedroom because it is able to produce oxygen at night. Though in small contributions, snake plant can absorb cancer-causing pollutants. Free draining soil is absolutely essential for growing snake plant. Usually, this plant takes three months they are very slow growing plant.



SPIDER PLANT

A plant of the lily family which has long narrow leaves with a central yellow stripe. This plant also symbolizes fertility if hanged in the bedroom. Hanging this plant in the kitchen brings abundance and prosperity. Additionally, they are nontoxic and are in fact edible, making them safe for pets and young children. Spider plants seeds germination usually takes a couple of weeks and ready for selling within three months.



YUCCA

Yucca is the common name for the more than 40 species of plants in yucca genes. The root of non-flowering plant is used to make medicines. Yucca is slow growing evergreen plant with sword-like leaves.

If yucca palm is provided with enough light, it can keep your bedroom fresh for long time. These plants are very robust and maintenance procedure requires only regular watering and fertilizing. Yucca plants need soil with excellent drainage capabilities. It takes three to four months for yucca plants to grow.



BABY RUBBER PLANT

Baby rubber plant is an easy-care, low maintenance houseplant with rounded leaves to bring good luck to your home. Rubber plants represent abundance, happiness and wealth. Rubber plant is the best and easy-care houseplants as per Vaastu and it has special mention in Vaastu shastra. Baby rubber plants love nutrient-rich, well-draining soil. It also takes two to three months to grow.



CROTON (COLOURFUL PLANT)

Croton is a common houseplant loved for its bright, colorful foliage. They have thick, leathery and shiny leaves. The leaves look simply stunning. The plant adds an exotic touch to your bedroom, living room or garden. These plants require soil that drains well. Usually, can be grown in three to four months.



ARECA PALM

Areca palm plant is considered lucky. It brings wealth, peace and prosperity to the house, pushing out negative energy and attracting positivity. Areca palm helps in absorbing indoor air pollutants. Best soil for areca palm plant is soil that is well-drained and contains peat moss i.e., they don't require expensive soil to grow and thrive. It takes around one to two months to get germinated and after four months it's ready for selling.



Cost of Project

Particulars	Amount (Rs. In Lakhs)
Land (own) (1 acre)	0.00
Land Development Cost (includes Farming land preparation cost, rain water harvesting system, storm water drainage network, and boundary bamboo fencing)	12.00
Mother plant bed preparation cost (developing mother bed area 35000 sq. ft., 50 mother beds)	3.00
Civil works and Buildings	69.70
Plant and machinery (Details in Annexure)	2.15
Miscellaneous Fixed Assets	1.25
D G Set (20 KVA)	1.80
Escalation & Contingencies (2%)	1.80
Preliminary & Preoperative Expenses (Annexure)	9.34
Sub-total (A)	101.04
Working Capital Margin @25% of Total WC Requirement	2.50
Total Project Cost	103.54
Total Working Capital Required (Lumpsum) (B)	10.00
MEANS OF FINANCE	
Total Funds Required (A+B)	111.04
<u>Loan Component-</u>	
TERM LOAN (60% of A)	60.62
WORKING CAPITAL (75% of B)	7.50
Total	68.12
Equity	42.92
Total	111.04

Detailed Cost Element

Sl. No.	Particulars	Amount (Rs. in Lakhs)
1	Drip Irrigation system	1.25
2	Storage tank (10000 litres capacity)	0.75
3	Land tilling machine	0.15
	Total	2.15

Contingencies and Escalations

It has been assumed at approximately 5% at cost.

Preliminary Expenses

Particulars	Amount (Rs. in Lakhs)
Incorporation Expenses	0.05
Project Report Preparation and Consultation	0.50
Legal Charges - Drafting for agreements, contracts, stamp paper, notary and affidavit cost	0.05
Security Guard and others	6.96
Interest Cost for period before commercial operations	1.78
Total	9.34

Salary

Designation	Manpower	Amount (Rs. in lakhs)
Agriculture Technician	1	2.64
Office staff cum Accountant	1	1.44
Skilled Workers	2	2.16
Workers (contract basis)	4	2.56
Security Guard	2	2.40

Profitability Statement

Particulars	Amount (Rs. In Lakhs)				
	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5
<u>A. INCOME</u>					
Production during the year	137935	144832	152073	159677	167661
Annual turnover	78.73	84.32	90.31	94.82	99.56
Total income during the year	78.73	84.32	90.31	94.82	99.56
<u>B. OPERATING EXPENSES</u>					
Raw Material	31.82	32.46	33.11	33.77	34.45
Salary	11.20	11.42	11.65	11.89	12.12
Repair & Maintenance	1.18	1.26	1.35	1.42	1.49
Power & utilities	0.26	0.26	0.27	0.27	0.28
Depreciation and Amortization	5.36	5.36	5.36	5.19	5.19
Total Operating Expenses	49.82	50.77	51.74	52.54	53.53
Operating Profit (A-B)	28.91	33.55	38.56	42.29	46.04
<u>C. FINANCIAL EXPENSES</u>					
Interest on term loan	4.97	4.23	3.50	2.76	2.00
Interest on working capital	0.64	0.64	0.64	0.64	0.64
<u>D. Other Expenses</u>					
Administrative and general Expenses	0.79	0.84	0.90	0.95	1.00
Total Expenses	6.39	5.71	5.04	4.35	3.63
Profit Before Tax	22.52	27.84	33.53	37.94	42.41
Provision for Tax	5.63	6.96	8.38	9.48	10.60
Profit after Tax (PAT)	16.89	20.88	25.14	28.45	31.80
Dividend Declared	0.00	0.00	0.00	0.00	0.00
Retained Profit	16.89	20.88	25.14	28.45	31.80

Breakeven Point

SL	Particulars	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5
A.	Net Sales	78.73	84.32	90.31	94.82	99.56
B.	Variable Cost					
	Raw Material	31.82	32.46	33.11	33.77	34.45
	Power and Utility	0.26	0.26	0.27	0.27	0.28
	Total Variable Cost	32.08	32.72	33.37	34.04	34.72
C.	Contribution (A-B)	46.65	51.60	56.93	60.78	64.84
D.	Fixed Cost					
	Salary	11.20	11.42	11.65	11.89	12.12
	Repair and Maintenance	4.97	4.23	3.50	2.76	2.00
	Interest on Term Loan	0.64	0.64	0.64	0.64	0.64
	Interest on WC Loan	1.18	1.26	1.35	1.42	1.49
	Depreciation and Amortization	5.36	5.36	5.36	5.19	5.19
	Total Fixed Cost	23.35	22.92	22.50	21.89	21.44
E.	Breakeven Point	50%	44%	40%	36%	33%
F.	Cash BEP	39%	34%	30%	27%	25%

Debt-Service Coverage Ratio

SL	Particulars	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5
i	Profit	16.89	20.88	25.14	28.45	31.80
ii	Depreciation	5.36	5.36	5.36	5.19	5.19
iii	Interest on term loan	4.97	4.23	3.50	2.76	2.00
A	Total (i + ii + iii)	27.22	30.47	34.00	36.40	38.99
i	Interest on term loan	4.97	4.23	3.50	2.76	2.00
ii	Principal repayment	8.66	8.66	8.66	8.66	8.66
B	Total (i + ii)	13.63	12.89	12.16	11.42	10.66
	DSCR A / B)	2.00	2.36	2.80	3.19	3.66

Interest on Term Loan and Principal Repayment

Refer Annexure I for Loan Repayment Schedule.

We have assumed the repayment tenure of term loan for a period of 7 years, rate of interest being @8.5% with the moratorium period being 6 months.

Address of Vendors

Name of Vendor	Address and Contact Number
Gnix Technologies LLP	Vivek Gupta H-38, Type I Beta 2 Type 2 Gautam Budh Nagar - 201309, Uttar Pradesh, India Phone No : 08048865234
Balson Polyplast Private Limited	Bhagvan Dangodara Sadak Pipaliya, Plot No. 4 Taluka Gondal Rajkot - 360311, Gujarat, India Phone No: 08042904887
AS High-tech Nursery & S.d Trader	Susheel Singh (owner) Khad Gujar Road, Near Khushi Farm House, Amroha, Gajraula-244235, Uttar Pradesh, India. Phone No: 08046084934

ANNEXURE - 1

Year	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Annually
I													
Principal													
Opening	60.62	60.62	60.62	60.62	60.62	60.62	56.29	56.29	56.29	56.29	56.29	56.29	
Repaid						4.33						4.33	8.66
Closing	60.62	60.62	60.62	60.62	60.62	56.29	56.29	56.29	56.29	56.29	56.29	51.96	
Interest			1.29			1.29			1.20			1.20	4.97
II													
Principal													
Opening	51.96	51.96	51.96	51.96	51.96	51.96	47.63	47.63	47.63	47.63	47.63	47.63	
Repaid						4.33						4.33	8.66
Closing	51.96	51.96	51.96	51.96	51.96	47.63	47.63	47.63	47.63	47.63	47.63	43.30	
Interest			1.10			1.10			1.01			1.01	4.23
III													
Principal													
Opening	43.30	43.30	43.30	43.30	43.30	43.30	38.97	38.97	38.97	38.97	38.97	38.97	
Repaid						4.33						4.33	8.66
Closing	43.30	43.30	43.30	43.30	43.30	38.97	38.97	38.97	38.97	38.97	38.97	34.64	
Interest			0.92			0.92			0.83			0.83	3.50
IV													
Principal													
Opening	34.64	34.64	34.64	34.64	34.64	34.64	30.31	30.31	30.31	30.31	30.31	30.31	
Repaid						4.33						4.33	8.66
Closing	34.64	34.64	34.64	34.64	34.64	30.31	30.31	30.31	30.31	30.31	30.31	25.98	
Interest			0.74			0.74			0.64			0.64	2.76
V													
Principal													
Opening	25.98	25.98	25.98	25.98	25.98	25.98	21.65	21.65	21.65	21.65	21.65	21.65	
Repaid						4.33						4.33	8.66
Closing	25.98	25.98	25.98	25.98	25.98	21.65	21.65	21.65	21.65	21.65	21.65	17.32	
Interest			0.55			0.55			0.43			0.46	2.00
VI													
Principal													
Opening	17.32	17.32	17.32	17.32	17.32	17.32	12.99	12.99	12.99	12.99	12.99	12.99	
Repaid						4.33						4.33	8.66
Closing	17.32	17.32	17.32	17.32	17.32	12.99	12.99	12.99	12.99	12.99	12.99	8.66	
Interest			0.37			0.37			0.26			0.28	1.27
VII													
Principal													
Opening	8.66	8.66	8.66	8.66	8.66	8.66	4.33	4.33	4.33	4.33	4.33	4.33	
Repaid						4.33						4.33	8.66
Closing	8.66	8.66	8.66	8.66	8.66	4.33	4.33	4.33	4.33	4.33	4.33	0.00	
Interest			0.18			0.18			0.09			0.09	0.55