

CULTIVATION OF CAPSICUMS IN GREEN HOUSE
(Green House Technology)



1.0 EXECUTIVE SUMMARY :

- (A) There are 3 varieties of capsicum. There are red, yellow and green varieties have been evolved.
- (B) Capsicum are used in 3 Star and 5 Star Hotels for variety of food preparations.
- (C) There is large market for exports also. There is high demand in Malaysia, U.S., Saudi Arabia, South Korea, UAE, UK, Korea and Japan.
- (D) Ideal project is in 4000 sq. mtr. . Project Cost 32.75 lakhs, loan amount @ 07.75 lakhs subsidy @ 25.00 lakhs.
- (E) The power required will be 10 KVA and water 10,000 liters per day.

2.0 THE PRODUCT AND MARKET:

- (A) The Price per kg. @ Rs.40/- in Indian market.
- (B) The Price per kg. @ USD \$ 5.00 in export market.



3.0 TECHNOLOGY:

Two types of Greenhouse are suitable in Indian weather.

(A) Naturally Ventilated Greenhouse.

(B) Greenhouse with Fan and Pad Cooling system.

(C) The Production of Capsicum project in 1 acre is 35 MTA Minimum & 65 MTA Maximum



4.0 PROCESS:

The flow sheets of site and field operations are –

Selection of Site → Soil & Water Analysis → Removal of Surface Soil →
Mixing with Fertilizer & Pesticides → Refilling → Preparing drains &
beds → Installation of Green House → Cover roof with shading net
→ Fumigation → Plantation → Drip & Fogging → Harvesting → Grading →
Packaging.

5.0 ORGANIZATION AND MANPOWER:

The manpower requirement -

| | |
|---------------------------------------|----------|
| a) Production Manager (Agronomist)... | 1 |
| b) Skilled Workers..... | 4 |
| | ----- |
| Total | 5 |

6.0 PLANT AND EQUIPMENTS:

GI fabricated green house structure, Drip irrigation, Fogging system, LD stabilized Poly sheets of 200 micron, 50% shading net and insect net. All material used as per NHB norms.

7.0 ESTIMATED PROJECT COST:

| <u>Description</u> | <u>(Rs.)</u> |
|--|----------------------------|
| Structure (650*4000) | 26,00,000 |
| Drip & Fogger | @3,00,000 |
| Leveling, Bed Preparation | @2,20,000 |
| Agronomist for 1 year | Included in service charge |
| Planting materials (5*12000) | 60,000 |
| Total | 31,80,000 |
| Service Charges (3%) | 95,000 |
| Actual Project Costing (1 Acre) | 32,75,000 |

8.0 MEANS OF FINANCING:

The proposed means of financing for capsicum project will be - (Rs. in lakhs)

- 1) Term loan from the Bank @ 11 % rate of interest per annum...Rs. _____
(After deduction of subsidy, actual loan demand is Rs. _____ lakhs)
- 2) Subsidy from the NHB Rs. 25.00
- 3) Promoter's Contribution..... Rs. 07.75

Total **Rs. 32.75**

[Subsidy will be deposited after commissioning of the project. So, promoter has to arrange the amount of the project from Bank or other sources.]

9.0 PROFITABILITY:

Assumptions:

- 1) The capacity utilization of the proposed unit is assumed at 60% in the 1st year and 90% in subsequent years.
- 2) The average price per kg. Of capsicum has been accounted at Rs.40/-
- 3) The revenue from domestic market has purposely not been accounted for, as it may be a cushion for price and other variations.
- 4) The rate of interest p.a. for the loans of Bank or other Financial Institutions has been computed at 11% p.a. Respectively for 4 years.

The cash flow statement for the period of 5 years has been presented below -

| S. No | Particulars | Year of Operation | | | |
|-------|----------------------------|-------------------|-----------|-----------|-----------|
| | | 1 | 2 | 3 | 4 |
| 1 | Sales | 16,00,000 | 16,00,000 | 16,00,000 | 16,00,000 |
| 2 | Cost of Prod. (Approx.) | 5,00,000 | 5,00,000 | 5,00,000 | 5,00,000 |
| 3 | Interest (approx) | 77,000 | 55,000 | 33,000 | 11,000 |
| 4 | Total Exp. | 5,77,000 | 5,55,000 | 5,33,000 | 5,11,000 |
| 5 | Net Profit | 10,23,000 | 10,45,000 | 10,67,000 | 10,89,000 |

* Selling rate are variable (min. 40 Rs/kg. to 250 Rs. /kg. max.).

* Exp. is depending upon labor rate mainly.

Pay-back period: 4.00 years

10.0 SUMMARY AND CONCLUSIONS:

The product is a luxury item but most popular in International Hotels and Restaurants. In maintaining the quality, it is suggested 8 to 10 days of storage in freezer, without any spoilage. But if you are supplying in domestic market cold storage is not necessary. It is also suggested in the project to cultivate 3 varieties of capsicums with proper product-mix based on International price and market tie-up.

11.0 BUILDER OF GREEN HOUSES: AATRE AGRO ORGANICS PVT. LTD.

12.0 Documents required for loan and subsidy:

1. 7/12 and 8/a.
2. Namuma no. 6 (Hakk patrak).
3. Namuna no. 16 (Pani no dakhlo).
4. Chatur sima no naksho.
5. Light bill (Agriculture).
6. Ration card, photo id-card and 4 pp-size photos.
7. 2 Guaranter's documents: 7/12, 8/a, photo id-card.

13.0 PAYMENT TERMS:

1. Rs. 10,000/- at the time of agreement.
2. Rs. 50,000/- (Draft payable to Horticulture board) for subsidy application.
3. 90% of the total cost of the project advance for structure, drip and fogger, bed preparation and planting material.
4. 10% after the completion of the project.

13.0 CALCULATION OF PLANTATION COSTING AND PRODUCTION VALUES OF CAPSICUM:



Cost of Cultivation

| | | | |
|--------------------|-------|---|-------|
| Sq. mtr. | 4000 | | |
| Plant Per Sq. mtr. | 3.55 | | |
| No. of Plants | 14200 | | |
| Mortality 5 % | 710 | | |
| | 14910 | 5 | 74550 |

Gross Production per Season (8 months)

| Item Name | Tons | Rate (Rs.) | Amount(Rs.) |
|-----------|------|------------|-------------|
| Capsicum | 40 | 40000 | 1600000 |

Gerbera



Cost of Cultivation

| | | | |
|--------------------|-------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 6.50 | | |
| No. of Plants | 26000 | | |
| Mortality 5 % | 1300 | | |
| | 27300 | 30 | 819000 |

Gross Production per Season (1 year)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|------|---------|
| Gerbera | 700000 | 3 | 2100000 |

Tamatoes



Cost of Cultivation

| | | | |
|--------------------|-------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 3.50 | | |
| No. of Plants | 14000 | | |
| Mortality 5 % | 700 | | |
| | 14700 | 10 | 147000 |

Gross Production per Season (8 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|-------|---------|
| Tamatoes | 100 | 12500 | 1250000 |

Chillies



Cost of Cultivation

| | | | |
|--------------------|-------|---|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 3.50 | | |
| No. of Plants | 14000 | | |
| Mortality 5 % | 700 | | |
| | 14700 | 9 | 132300 |

Gross Production per Season (8 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|-------|---------|
| Chillies | 55 | 30000 | 1650000 |

American Rose



Cost of Cultivation

| | | | |
|--------------------|-------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 3.50 | | |
| No. of Plants | 14000 | | |
| Mortality 5 % | 700 | | |
| | 14700 | 20 | 294000 |

Gross Production per Season (1 year)

| Item Names | Tons/Nos. | Rate | Amount |
|---------------|-----------|------|---------|
| American Rose | 6000000 | 4 | 2400000 |

Tamatoes Cherry



Cost of Cultivation

| | | | |
|--------------------|-------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 3.50 | | |
| No. of Plants | 14000 | | |
| Mortality 5 % | 700 | | |
| | 14700 | 33 | 485100 |

Gross Production per Season (6 months)

| Item Names | Tons/Nos. | Rate | Amount |
|-----------------|-----------|-------|---------|
| Tamatoes Cherry | 40 | 30000 | 1200000 |

Carnation



Cost of Cultivation

| | | | |
|--------------------|-------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 6.75 | | |
| No. of Plants | 27000 | | |
| Mortality 5 % | 1350 | | |
| | 28350 | 33 | 935550 |

Gross Production per Season (6 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|------|---------|
| Carnation | 900000 | 2.5 | 2250000 |

Broccoli



Cost of Cultivation

| | | | |
|--------------------|------|----|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 2.25 | | |
| No. of Plants | 9000 | | |
| Mortality 5 % | 450 | | |
| | 9450 | 55 | 519750 |

Gross Production per Season (4 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|-------|---------|
| Broccoli | 50 | 30000 | 1500000 |

Parsley



Cost of Cultivation

| | | | |
|--------------------|--------|---|--------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 40.50 | | |
| No. of Plants | 162000 | | |
| Mortality 5 % | 8100 | | |
| | 170100 | 4 | 680400 |

Gross Production per Season (3 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|-------|---------|
| Parsley | 70 | 30000 | 2100000 |

Coriendur

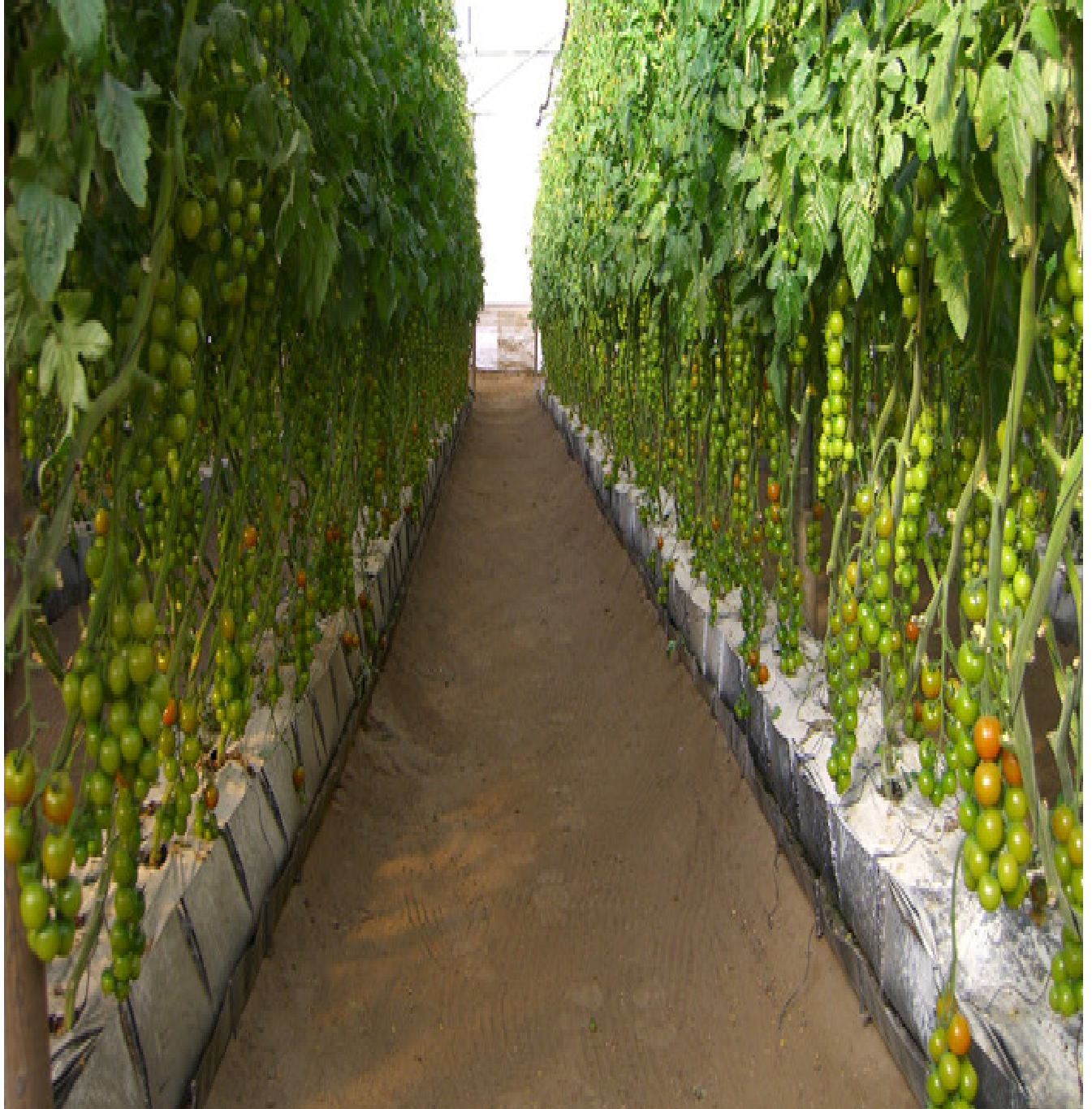


Cost of Cultivation

| | | | |
|--------------------|--------|------|-------|
| Sq. Mtr. | 4000 | | |
| Plant Per Sq. Mtr. | 75.00 | | |
| No. of Plants | 300000 | | |
| Mortality 5 % | 15000 | | |
| | 315000 | 0.15 | 47250 |

Gross Production per Season (3 months)

| Item Names | Tons/Nos. | Rate | Amount |
|------------|-----------|-------|--------|
| Coriendur | 25 | 15000 | 375000 |











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