

Field trip to HTC, Talegaon and Abhinav Farmers' Club, Hinjewadi Pune

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1. Horticulture Training Center, Talegaon

A. Background:

- Greenhouse floriculture was introduced in India in the 1990s.
- Mr. Vishwas Jadhav is presently the Manager of the Greenhouse
- Early companies:
 - Neha Pvt. Ltd.: Exported roses to Netherlands
 - Oriental Floritech, Started by Tatas
- 35-38 projects started in Pune and 25-28 in Bangalore. Technology was completely imported on turn-key basis. Most of these closed down due to some issues.
- Small farmers started venturing on 500 m² (small greenhouse). They started with flowers like Gerbera, Carnation which could be sold in the local market.
- Season of cultivation is from November to February.
- Only export quality roses are grown. Bud size and length of flower (standard: 40cm) are important parameters.
- Floriculture got a boost from 2000-2004 since medium scale entrepreneurs ventured. They were not necessarily farmers and had comparatively lower overheads (Drivers, vehicles, managerial staff, etc)
- Currently, the total area under greenhouses: in 2000: 300 acres; Area projected in 2010 is 2500 acres.
- 1 Hectare employs 15 laborers and 1 supervisor.
- In India, the advantage is that cheap labor is available.
- Africa, South America (Brazil, Ecuador) pose as competitors to India in floriculture. But their markets are in mostly in the U.S. In Africa, there is a huge social unrest, so this is not a serious competitor.
- For India: Major markets are U.K., Netherlands and Europe.
- Cultural differences: In India, we usually buy flowers for festivals or marriages. But in U.S., every weekend they buy flowers just for decoration. Shape, size and vase- life are preferred over smell.
- Total Indian exports of flowers: Rs 350 crores. Out of this, Rs 250 crores are dry flowers (from farms or forest waste), exported by only two companies.

B. Details about the Greenhouse:

- Types of greenhouses:

Glass House	Poly house	Shade net	Polycarbonates house
Glass	Polythene	Shade net, screen	Poly carbonate
15 years	3 years, then replace	3-3.5 years, then replace	7 years

- Each requires different type of climate control.
- In India, greenhouses are necessary for reducing summer heat and not for protection against snowfall or for capturing heat.
- Control on following factors is crucial:
 - a. Temperature:
 - 16-18°C at night and less than 35 °C in the day
 - UV rays do not reach inside hence faster cell division occurs due to which there is increased growth and output
 - Whitewashing in summer is done by spraying distemper on top of the greenhouse to prevent sunlight entering in.
 - b. CO₂
 - CO₂ does not escape and is available for the next day, used up in the morning hours (0.07% in morning hours).
 - c. Humidity:
 - Ideally between 70-80%, above 90% there are increased occurrences of pests
 - Fogging system present
 - d. Sunlight
- Polyhouses are low cost and can be optimized best for our conditions. Automation is not possible due to financial implications and also due to the difficulty in finding skilled labor.
- Investment: Rs 20 lakh for greenhouse; 3 lakh for black soil, irrigation; 1 lakh for bed, fertilizers; 3 lakh for plants
- Bud caps are put on flowers to create a negative pressure and increase petal count of the flower.
- Yield: Around 2000 flowers per day.
- Water requirement: 1 liter/ plant /day in summer.
- Cold storage facility to store flowers is available.

2. Abhinav Farmers' Club

A. Foundation and early stages:

- The Club was founded in 1999.
- Founder of the club is Mr. Dnyaneshwar Bodke. He underwent training at the Horticulture Training Center, Talegaon
- The basic principle is to produce as per demand.
- Rs 10 lakh loan was acquired from Canara Bank for starting commercial farming.
- The first crop taken was carnation. The repayment (with interest) was achieved merely in 14th months and hence he was felicitated.
- Initial number of members in Abhinav Farmers club: 17. All repaid their loans of Rs 10 Lakhs in 2 years.
- The Club has received lots of publicity through television and newspapers (about 5000 media items till date).
- After beginning with organic farming for the first time on a land, the yield is high initially since the fertilizers originally present provide nutrients.

B. Features:

- In an area of just 15-20 acres, a turnover of Rs 12-13 crores is obtained.
- The net profit is around Rs 25000-30000 per farmer per month.
- Kitchen Gardening: Supplement to commercial agriculture, provides self-sufficiency
- First site where exotic vegetables are grown by organic farming, ECOCERT certified.
- Products are sent to Delhi, Kolkata, Gujarat and Mumbai. Demand from Dubai and Singapore, but not enough produce to supply there.
- Even 1 acre of land is sufficient to carry out profitable agriculture
- The club employs 31 girls who are agriculture graduates and 5 people with an MBA degree.
- Another occupation: Dairy: around 3000 liters milk, sold at Rs32 per liter. The turnover is Rs 3 to 5 crores.
- Abhinav Farmers Club received a National Award at the hands of P. Chidambaram.in
- Mr. Bodke has travelled to 11 countries for different conferences, discussions, study.
- These days there is problem of labor due to the IT boom. The salary difference is huge (Rs300 per day versus Rs100 per day). But if they work at Abhinav Club, their needs are minimal. They get rooms, food, electricity and schooling. Vegetables, milk are all free.
- There are self-help groups which carry out picking, packing and grading.
- Total 47 such groups are there in Maharashtra. NABARD gives extensive practical training.
- There is an active participation of women in marketing, management, etc

- Soil testing is done periodically in government labs
- Water requirement: 3000 liters per day.
- Single phase electricity system is sufficient to cater to the power requirements.
- These days, the family size is small. Hence, the consumption pattern of vegetables, etc has changed. We now go for small (1-2 kilogram) vegetable sizes rather than buying large size vegetables, mainly because they are more convenient. This change should be understood and the necessary modifications must be made in cultivation for gaining more profits.
- The raised bed system is used in the greenhouse. It can be used consecutively for 3-4 years without change. Around the year, for 11 months the land is under plantation and 1 month is treated as the rest period for the land.
- Productivity: 50 kg tomatoes/ day
- Marketing is very crucial: around 50% of the role is played by effective marketing techniques
- Seeds are all imported from China, since they give guaranteed output
- Since there are prior commitments, it becomes crucial to follow the deadlines.
- Till date, 75,000 people have visited the site! Out of them 1200 were foreigners

C. About today's agriculture:

- As Mr. Bodke quotes, “The average farmers don't do farming intelligently”
- One problem is that the farmers are not aware of the production cost of what they produce. Hence they do not understand how the production can be made profitable
- Agriculture is one occupation that can give both profits (since we cannot avoid consuming food) and satisfaction (that one is actually producing something so vital for the sustenance of life).
- Farmers are unaware of the fact that they can establish direct consumer links. Abhinav Farmers' club has wiped off concept of “middlemen” and “agents” (Dalaals).
- Food processing industry offers attractive job opportunities.
- Educated people are essential in agriculture.





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