

Success story of A Lady Farmer

Vegetable cultivation backed by proper marketing has been successfully used as a tool to alleviate poverty. Cultivation of nontraditional vegetable like green capsicum is more profitable than traditional vegetables. Coloured capsicum cultivation through high-tech agriculture provides still higher income. A success story of Coloured capsicum cultivation through high-tech agriculture using fertigation finds a place here.

The name of the farmer is Minatai Visnu Jagtap, she belongs to Village Pimpalgao Vasant, P. O. Pimpalgao Vasant, District Nasik, Maharashtra (India).

Background Information:

Ms M V Jagtap constructed a poly house at a cost of Rs 2.7million on 0.4 ha area in 1994 to cultivate flower. It continued for more than 8 years. The venture turned out to be a profitable one after payment of the investment she made. To make more income she decided to go in for coloured capsicum cultivation in the same poly house.

Techniques Adopted: In the first week of June, 2008 hybrid coloured capsicum seeds were planted in nursery. Three feet wide beds were made up of soil, coco pit, and organic manure. Seedlings were planted in row spacing of 18 inches and plant to plant spacing of 12 inches. The total plant population in 0.4 ha was 11000. A drip lateral was placed in between the two rows. Other practices followed were as follows:

1. After planting, daily irrigation through drip for 15-20 minutes.
2. Daily fertigation after 45 days of planting as mentioned in Table 8.
3. In addition, top dressings of fertilizer were also done as indicated in Table 9.
4. Disease –pest infestation was less.
5. Powdery mildew, downy mildew and sucking insect attack were suitably taken care of.
6. Harvesting started after two months of planting
7. Harvesting was done thrice in a week in the morning (Table 10).

Economics of Drum stick cultivation:

The monthly yields obtained are mentioned in Table 10. The average per kg price was Rs.40 with a range of Rs.20- Rs.120, total yield was 42 tonnes/acre (0.4 ha). The total income generated was Rs.1.68 million while the cost incurred wasRs.0.68 million resulting a net



income of Rs.1 million/acre i.e. the per ha profits generated would be Rs.2.5 million per annum.

Table 10:

Table 10 – Yield and net profit generated per acre (0.4ha)	
Month	Yield (tonne)
September, 08	3
October, 08	4
November, 08	5
December, 08	5
January, 09	8
February, 09	8
March, 09	5
April, 09	4
Total yield	42
Income(Rs)	16,80,000
Expenditure (Rs)	6,80,000
Net income(Rs)	10,00,000
Net income(Rs)/ha	25,00,000

Table 8:

Table 8 – Weekly fertigation schedule		
Day	Name of fertiliser	Quantity
Monday	Calcium nitrate	6 kg
Tuesday	12:61:0	2kg
Wednesday	13:40:13	3kg
Thursday	13:0:45	4kg
Saturday	Zinc Sulphate+ hexolin	As per recommendation
Sunday	Nicolef +Magnesium sulphate	As per recommendation

Table 9:

Table 9 – Top dressing of plant nutrients (per acre)		
Name of fertiliser/manure	Quantity (kg)	Time of application
DAP (18:46:0)	100	All these were mixed together and applied thrice at an interval of 2 months
SSP	50	
MOP	50	
Borecole	100	
Organic manure	150	



Conclusion:

Fertigation increases water and nutrient use efficiency. With the increase of coverage of area under drip irrigation, the area under fertigation is likely to increase. Of late, use of drip in rice which is the most important food crop of the country has been reported from AP. But drip has its own limitations. It cannot be a substitute of traditional irrigation system in high rainfall area and in the area where traditional irrigation system has been well developed Fertigation has to be used as per the recommendations. It has been seen that in practice farmers also use traditional method of nutrient application in addition to fertigation due to fear of yield loss because of less application of fertilizers and water. It was found that in hot summer in Maharashtra a papaya farmers resorted to furrow irrigation to save his crop. This shows farmers need to be educated and motivated to use fertiliser and water efficiently through fertigation.

Source: Fertiliser Association of India

