



EFFECT OF TRAINING & PRUNING TECHNIQUES ON YIELD & QUALITY OF CAPSICUM UNDER PROTECTED CULTIVATION

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ABSTRACT

The present investigation was carried out during 2017-2018 & 2018-2019 with the objective of observing the effect of the tested systems of pruning on vegetative, fruiting, yield and quality traits of capsicum varieties on farmer's field of Baramati tahasil. The experiment was laid out in a factorial randomized block design with one replications and two treatments with Indra, Bachata and Inspiration cultivars of capsicum pruned with two intensities *i.e.* two shoots and unpruned (control). The results showed that the two stem pruning treatment significantly affected the plant growth and the average weight of fruit is increased *i.e.* 226 gm in comparison with farmers practice only getting 175 gm average fruit weight. It was observed that the yield of capsicum was increased by 23.67% as compared to farmers practice with the good quality fruit production. The average yield obtained in trial plot was 79.40 ton/ha as compared to 64.20 tons/ha from farmers practice. The net returns Rs.15,43,000/- per ha and B: C ratio is 1: 3.8 ratio were also recorded highest in treatment plots as compared to local check net returns Rs.10, 90,064.4/- per ha and B: C (1: 2.3) ratio.

KEYWORDS: Capsicum, Training, pruning, fruit quality & Protected Cultivation.

INTRODUCTION

Capsicum (*Capsicum Annum*) Family- Solanaceae is one of the important vegetable crops commercially grown in Maharashtra also in Pune district. India is the second largest producer of Vegetables in the world, next only to China. Baramati is drought prone area, where the average rainfall received is about 400-450 mm. As there are water scarcity and sucking pest infestation problems, most of the farmers uses the Shadenet house, Polyhouse, Insect net house, drip irrigation systems to irrigation & Fertilizers application to crops. Although the Production of Capsicum is not better, so for increasing the production and reduction of percentage of pest infestation trial was carried out at Village-Naroli & Shirhsuphal Tal- Baramati Dist-Pune. Generally farmers not followed proper training & pruning techniques in Capsicum grown under protected Cultivation because of that they are facing pest and disease incidence problem with low quality of fruits so for to avoid these problems of farmers this technology was introduced by Krishi Vigyan Kendra, Baramati.

Plan, Implement and Support from the farmer-

The trial on training & Pruning techniques on yield & quality of Capsicum under protected Cultivation was conducted during 2017-2018 & 2018-2019. The trials were conducted in Kharif season under Polyhouse & shadenet house. The annual rainfall is 465 mm with 29 rainy days. Before this trials farmer was not followed proper training & pruning techniques in capsicum because of this farmers practice there is attack of pest and disease

on crops and requires maximum cost for control of sucking pest, also getting poor quality fruits. So avoiding this problem of farmer KVK, Baramati was decided to conduct trial on training & Pruning techniques on yield & quality of Capsicum under protected Cultivation. Now in the year 2019-2020, Total 12 demonstrations were conducted in two tahasils of Pune districts. Also technical leaflet was developed on training & Pruning techniques on yield & quality of Capsicum under protected Cultivation.

RESULT & DISCUSSION

Comparisons were made with farmers practice. From the above trial it can be concluded that, Due to proper training & Pruning techniques on yield & quality of Capsicum under protected Cultivation increases the fruit yield, quality and reduces pest risk of Capsicum only 8% pest incidence is observed. Also due to this technology, farmers received maximum market price to crops as compare to farmer practice. The average weight of fruit is increased *i.e.* 226 gm in comparison with farmers practice only getting 175 gm average fruit weight.

It was observed that the yield of capsicum was increased by 23.67 % as compared to farmers practice with the good quality fruit production. The average yield obtained in trial plot was 79.40 ton/ha as compared to 64.20 tons/ha from farmers practice. The net returns Rs.15,43,000/- per ha and B: C ratio is 1: 3.8 ratio were also recorded highest in treatment plots as compared to local check net returns Rs.10, 90,064.4/- per ha and B: C (1: 2.3) ratio.

TABLE1: Details of observations recorded in the on farm trial

Title of Trial (OFT)	Treatment Details	Data on the Parameters
1	2	3
Effect of training & Pruning techniques on yield & quality of Capsicum under protected Cultivation	T1- Farmers Practice- Maintaining 4-6 branches on main stem ground level. Raised beds, Drip irrigation and Fertigation with Naturally Ventilated Polyhouse	1.Yield of Crop (Ton / ha) – 64.20 2.Average Weight of Fruits (gm)- 175 gm 3.Cost of Cultivation / ha – Rs.23.10 Lakh 4. Incidence of Pest & disease. – 25.4 5. C:B Ratio- 1 :2.3
	T2-Trial Treatment- Maintaining 2 branches on main stem ground level. Raised beds, Drip irrigation and fertigation with Naturally ventilated Polyhouse.	1.Yield of Crop (Ton / ha) – 79.40 2.Average Weight of Fruits (gm)- 226 gm 3.Cost of Cultivation / ha – Rs. 28.54 Lakh 4. Incidence of Pest & disease. – 8.6 5. C:B Ratio- 1 :3.8

Impact

The effect of proper training & Pruning techniques on yield & quality of Capsicum under protected Cultivation this technology is very useful to reducing pest risk at very minimum level and for improving fruit quality, yield and receiving maximum net returns to the farmers.

By observing the result of this technology now days approx.128 farmers of Capsicum with covering a total area 15.5 ha in four tahasils *i.e.* Baramati, Purandar, Daund, Indapur of Pune districts.



Demonstration on training & Pruning techniques on yield & quality of Capsicum under protected Cultivation 2017- 18 & 2018-19

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