

Original Research Article

Cucumber Cultivation in Poly house for Doubling the Income of Vegetables Growers

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ABSTRACT

Most vegetable growers are growing vegetables in conventional technique in their fields. During vegetables cultivation many disease and insects incidence occurs in their crops indifferent stages and damaged the vegetables crop and deteriorate the quality. For the management of pests, the disease growers are applying the insecticide indiscriminate ways. Resulting they are getting low yield and poor quality. Growers get low return due to high expenses in pesticide during vegetable production. Present days, it has been proved that growing of vegetable under protected cultivation techniques will give higher yield with best quality and growers can get higher return per unit area with optimum utilisation of natural resources. But due to some constraints, this technology has not become popular among the vegetable growers. Keeping this in view, it is needed to Study Cucumber Cultivation in Poly house for the doubling the Vegetables growers, income. So that protected cultivation techniques can be easily popularised for the benefit of the vegetable growers for higher returns.

Keywords

Poly house,
Techniques,
Cucumber,
Vegetable growers

Introduction

Protected Cultivation is a cropping technique for growing the horticultural crops under protective structure to shield them from pests and weather for assured, climate resilient and enhanced production of quality products. Protected Cultivation technology for horticultural crops has tremendous potential for adoption over and across the country under varied Agro climatic condition to enhancement of the productivity with quality. Land and other resources can be utilized effectively in this technique. Other benefits this technique includes maximum return per

unit area and assured income in compare to other technologies. Besides this growers can get the production in off season and protect the crop from insects and virus. It's also Create the self-employment for education and skill person. Plug tray nursery technology is used at commercial scale for raising the healthy vegetable seedlings. Large scale use of insect proof net houses with different designs for vegetable cultivation and seed production. Use of modified naturally ventilated greenhouses equipped with sprinklers on the roof area and zero energy consuming exhaust are used in this technique .Used naturally ventilated green house for

hybrid seed production. Plastic mulches used for commercial vegetable cultivation. There is Government support for extended for self-fabrication mode of temporary low cost structure like insect proof net houses, shade net houses, walk-in-tunnels. Government is also promoted protected cultivation technology for its sustainability in cluster approach. Solar energy can be used for running the drip system to minimize the cost of cultivation under this technique. To sustain the protected cultivation structure mandatorily clubbed with rain water harvesting. Cultivate the more suitable crop sequence seasonal based for success this technique. At large scale mechanization in vegetable cultivation by using raised bed makers and plastic laying machine. Cluster approach for taking up protected cultivation as a whole is required and may be clubbed with processing industry.

Materials and Methods

This study was carried out on survey basis at farmers Poly House during 2018-19 and 2019-20. For this study, four districts of Western U.P i.e. Meerut, Muzaffarnagar, Baghpat and Saharanpur were selected. Three blocks of each district and three Farmers from each block were selected for study and average was calculated and compared. The detail observations of study are given below in Table 1, Table 2 and Table 3.

Results and Discussion

In table no-1 the average yield of Cucumber was found 85qtl/acre with the Rs 36800 respectively. The highest average yield per acer was found 93.34qtl in dist, Muzaffarnagar with net return Rs 42617. The

minimum average yield was in dist. Baghpat 75 qt. with net return Rs 34933/acre. In table no-2 the minimum average yield and income in Poly house was found in dist, Muzaffarnagar 156qt/acre with the net return Rs 83317 and maximum average yield was found in dist. Saharanpur 167 qt/acre with the net return Rs 86450. The results are in conformity (Sanjeev *et al.*, 2015).

In table No-3 the average yield in conventional method of four dist. was found 82qt/acre with the net return Rs 38408 and average yield in Poly house technique was found 162qt/acre with the net return of Rs 83433. In this study the maximum yield and return of Conventional technique 93qt/acre with the net return Rs 42617 was found lower in comparison to the minimum yield and return of Poly house technique 156qt/acre with the net return Rs 83317 was also higher than conventional method. The average yield 162qt. with net return Rs 83433 was significant higher than 82qt. yield with the net return Rs 38408 conventional method (Sreedhara *et al.*, 2013). The net return of Poly house technique was found more than double (219%) in Comparison to the conventional technique (Nikki *et al.*, 2017).

On the basis of the above result and discussion it is concluded that cucumber cultivation in Poly house technique was found in yield and return more than double in comparative to Conventional technique the yield and net return of Poly house technique was found significant higher than conventional technique. The study revealed that Cucumber cultivation in Poly house is suitable for the doubling the Vegetables growers income.

Table.1 Details of the cucumber crop in conventional technique (1 acre)

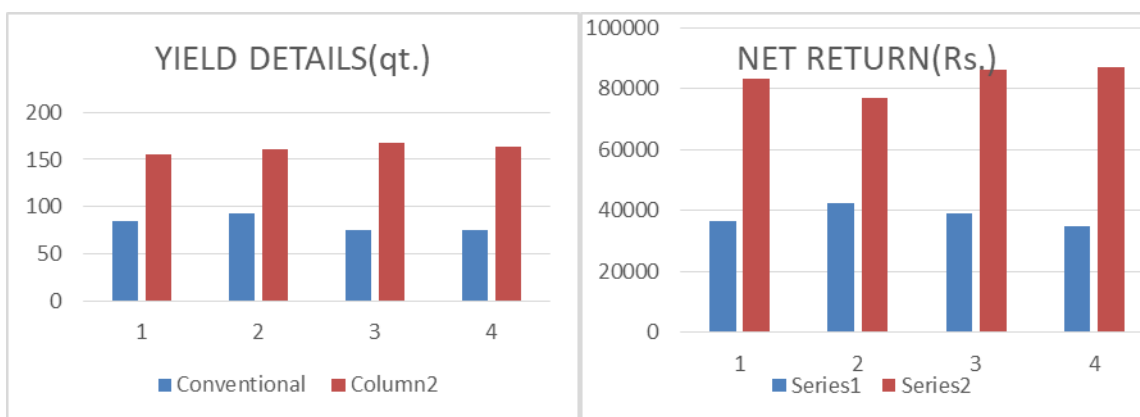
		Conventional method					
		Average yield(qt.)			Rates (Rs.)/qt.	Total return(Rs.)	Net return(Rs.)
Distt.	Block	18-19	19-20	Average			
Meerut	Hastinapur	77	83	80	800	64000	34500
	Sardhana	92	88	90	850	76500	38250
	Daurala	87	83	85	900	76500	37650
		Average		85	850	72334	36800
Muzaffarnagar	Muzaffarnagar	93	87	90	850	76500	41600
	Morana	96	94	95	750	71250	42500
	Khatauli	92	98	95	800	76000	43750
		Average		93	800	74583	42617
Baghpat	Pilana	79	71	75	850	63750	34250
	Khekhda	66	74	70	900	63000	32750
	Barot	82	78	80	950	76000	37800
		Average		75	900	67583	34933
Saharanpur	Muzaffarabad	67	73	70	800	56000	30200
	Baliakhedi	73	77	75	750	56250	32800
	Nagala	84	76	80	700	56000	34000
		Average		75	750	56083	39283

Table.2 Details of the cucumber crop in Poly House technique (1 acre)

		Poly House Technique					
		Average yield(qt.)			Rates(Rs.)/qt.	Total return(Rs.)	Net return(Rs.)
Distt.	Block	18-19	19-20	Average			
Meerut	Hastinapur	154	162	158	875	138250	78250
	Sardhana	148	152	150	925	138750	78750
	Daurala	157	165	161	950	152950	92950
		Average		156	917	143317	83317
Muzaffarnagar	Muzaffarnagar	159	167	163	850	138550	78550
	Morana	152	158	155	825	127875	67875
	Khatauli	163	167	165	875	144375	84375
		Average		161	850	136933	76933
Baghpat	Pilana	161	163	162	875	141750	81750
	Khekhda	160	172	166	925	153550	93550
	Barot	166	158	162	900	145800	85800
		Average		163	900	147033	87033
Saharanpur	Muzaffarabad	168	174	171	900	153900	93900
	Baliakhedi	161	167	164	875	143500	83500
	Nagla	171	163	167	850	141950	81950
		Average		167	875	146450	86450

Table.3 Comparison between conventional and poly house techniques

DETAILS	YIELD DETAILS				NET RETURN DETAILS			
	Poly House	Conventional	Increase (qt.)	Increase %	Poly House	Conventional	Increase In Rs.	Increase %
Meerut	156	85	71	183.53	83317	36800	46517	226.4
Muzaffar nagar	161	93	68	173.12	76933	42617	34316	180.52
Baghpat	163	75	88	217.33	87033	34933	52100	249.14
Saharanpur	167	75	92	222.67	86450	39283	47167	220.06
AVERAGE	162	82	79.5	199.16	83433	38408	45025	219.03



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