



RESEARCH PAPER

Extent of adoption of KAU practices on chilli cultivation in the homesteads of Kollam district

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Abstract : Chilli is one of the important vegetable grown in homesteads of Kerala. In order to increase the production and income of chilli it is essential to improve the knowledge level and rate of adoption of scientific cultivation practices. Looking to the importance of chilli, it is essential that homestead growers of the state should be motivated for adopting various scientific cultivation practices. Hence, the present study was carried out with an objective, to know the extent of adoption of KAU practices on chilli cultivation by the homestead vegetable growers. From the study we can conclude that majority of the farmers adopted KAU varieties and they follow various cultural practices like seed treatments, seed rate, land preparation, weeding and application of manures as per the recommendations of package of practice and the least adopted practices were seasonality in cultivation and use of soil fumigants or plant protection measures.

Key Words : Extent of adoption, KAU recommended practices, Chilli cultivation, Homestead vegetable growers

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INTRODUCTION

Adoption is a process defined as the decision to make full use of an innovation, which encompasses the mental process that an individual undergoes from first hearing about to finally adopting an innovation. Chilli is one of the important vegetable spices grown in homesteads. Chilli is virtually an indispensable item in the kitchen besides these; it is also used in medicinal purpose and for making bio pesticides. In order to increase the production and income of chilli it is essential to improve the knowledge level and rate of adoption of scientific cultivation practices. A number of programmes

have been introduced in Kerala by various formal institutions to increase the agricultural production and income of the homestead growers. Still exist some gap regarding the adoption of various cultivation practices. Looking to the importance of chilli, it is essential that homestead growers of the state should be motivated for adopting various scientific cultivation practice. Hence, the present study was conducted in the selected Panchayath in Kollam district. The findings would give information to Scientists of KAU, officials of state Department of Agriculture, Extension scientists of KVKs, Development Organisations and other change agencies

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to implement plans, policies and programmes for the benefit of homestead growers.

MATERIAL AND METHODS

The present study was conducted in the homesteads of Kollam district. There are five Agro Ecological Units in Kollam district, out of which two AEU's namely, AEU 9 and AEU 12 were selected on the basis of maximum area under chilli cultivation. From each selected AEU's three Panchayats were selected. From each selected Panchayats 20 homesteads were selected randomly. Thus, in all 120 homesteads were included in the sample of study.

Thirteen recommended practices included in the package of practices in vegetable cultivation were used for measuring the rate of adoption of each practice. Against each of the practice, the scoring was on a three point continuum ranging from 'adopt', 'partially adopt' and 'not adopt' with weightage of 3, 2 and 1, respectively.

RESULTS AND DISCUSSION

In order to understand the extent of adoption of various KAU cultivation practices about chilli by the respondents, the recommended practices were ranked separately. The adoption scores were calculated for each practice based on the respondent's rate of adoption for chilli and the results are presented Table 1.

It is clear from the Table 1 that the most widely adopted practices for chilli cultivation were use of KAU

varieties, application of well rotten FYM at the time of land preparation, providing staking to prevent lodging, maintain proper spacing between crops, application of Bordeaux mixture, seed rate, application of NPK fertilizers as per the recommendation. The least adopted practices were seasonality in cultivation and use of soil fumigants or nematicides, seeds soaking in streptocycline, soil sterilization using burning the rice straws or other organic matter on the bed before sowing (Namitha, 2017).

From the above mentioned results, it may be inferred that majority of the farmers adopted KAU varieties and they follow almost all the cultural practices like seed treatments, seed rate, land preparation, weeding, application of manures as per the recommendations of package of practice. The low adoption of 'plant protection measures' which might be due to the reason that most of the growers were not using insecticides and fungicides. It might also be due to the need of special equipment's for spray or their hazardous effect on human beings and non-availability of suitable insecticides and fungicides Singh *et al.* (1999) who reported that majority of the farmers adopted plant protection and weedicides chemicals in low level.

Majority of homestead growers preferred bio pesticides, botanicals and organic manures and avoid use of chemicals maximum as possible. This result also suggests that, there is a need to educate the vegetable growers by the extension agencies for popularizing the use of organic plant protection measures by conducting

Table 1: Adoption scores of respondents recommended practices in chilli cultivation		(n=120)	
Sr. No.	Vegetable practices – chilli	Adoption score	Rank
1.	Spacing is 45 x 45 cm (75x 45-60 cm for white kanthari)	291	4
2.	Varieties are Jwala, Jwalasakhi, Jwalamukhi Manjari, Ujwala, Anugraha, Vellayaniathulya, Vellayanisamrudhi	350	1
3.	May – June (rainfed crop) , Sept – October (irrigated crop) is the cropping season	140	13
4.	Seed rate is 1 kg/ ha	257	6
5.	Soil sterilization using burning the rice straws or other organic matter on the bed before sowing	170	10
6.	Well rotten FYM @ 20- 25 t/ha at the time of land preparation	345	2
7.	NPK: 35:40:12.5 kg/ ha applied as basal dose before transplanting. One fourth nitrogen and half of potash applied @ 20-30 DAP and remaining one fourth nitrogen @ 2 MAP	220	7
8.	Provide staking to prevent lodging	320	3
9.	Use of dimethoate @ 0.05% and dichlorvos (0.02%) with fish oil rosin soap against aphids, mites ,thrips	180	8
10.	Use of soil fumigants or nematicides to reduce the attack of root knot nematode	150	12
11.	Application of 1% bordeaux mixture	280	5
12.	Seeds soaking in streptocycline (1 g/40 lit) for 30 min. to reduce bacterial wilt infestation	160	11
13.	Hot water treatment @ 52 °C for 30 min. is recommended against anthracnose	175	9

the result demonstrations. Special attention should be taken to provide training about chilli production to the farmers so that their knowledge could be increased and the adoption of technology would ultimately be enhanced. Thereby we can ensure maximum production and income to the homestead growers. Similar findings have also been reported by Yadav *et al.* (2002).

Conclusion:

It was found that majority of the farmers adopted chilli varieties developed by KAU and they follow almost all the cultural practices like seed treatments, seed rate, land preparation, weeding and application of manures as per the recommendations of package of practice. Majority of them adopted plant protection and weedicides chemicals in low level. Special attention should be needed

by the extension agencies to increase the adoption level of plant protection measures among the homestead farmers.

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