Impact of KVK training programme on knowledge and adoption of tomato crop production technology in Ratlam district

S.K. PANDEY, MOHD. MUSTAFA AND D.P. RAI

See end of the article for authors' affiliations

Correspondence to :
S.K. PANDEY
Department of Agricultural Extention, Krishi Vigyan Kendra Kalukheda, Piploda RATLAM (M.P.) INDIA

ABSTRACT

The study was conducted with objective to review the level of knowledge and adoption of improved practices of tomato crop by Krishi Vigyan Kendra, Jaora (Ratlam) where most of the farmers are growing tomato crop for commercial purpose. After assessing the training needs, complete package training programme on tomato crop was conducted for selected tomato growers by KVK, Jaora (Ratlam). Majority of the trainees were aware of recent technological advancement about tomato crop. Trainees had better and in depth knowledge of recent know – how about package of practices of crop. The trainees were aware of recent varieties, proper dose of balance fertilizer, irrigation management and weedicides to be applied properly in tomato crop. Impact also reflected that trainees had higher level of adoption of recommended practices of tomato crop than non-traniees.

Pandey, S.K., Mustafa, Mohd. and Rai, D.P. (2011). Impact of KVK training programme on knowledge and adoption of tomato crop production technologies in Ratlam district. *Agric. Update*, **6**(1): 63-65.

INTRODUCTION

Knowledge may be defiend as those behaviour and test situations, which emphasize the remembering, either by recognition or recall of ideas. One of the main mandates of Krishi Vigyan Kendra is to provide and inprove the knowledge of the trainees about the improved farm practices because knowledge is congnitive component of individuals mind and plays an important role in convert as well as overt behaviour and individuals with a greater knowledge of technical nature of improved practices would lead to a high adoption possibly because knowledge is not inert. Once knowledge is acquired and retained in the mind, it undergoes and produces change in the thinking process of mental alchemy. Lack of proper and adequate knowledge leads to under or over adoption of innovation.

Degree of adoption of any item of package may be of complete or full, partial and non-adoption. In the present study, adoption means the degree of actual use of any recommended package of practices of tomato crop.

Keeping this in view, an attempt was made to ascertain the level of knowledge and adtoption of improved practices of tomato crop.

Key words : Knowledge, Tomato crop, Training needs, Training programme

Received: August, 2010; Accepted : November, 2010

METHODOLOGY

KVK, Jaora (Ratlam) was purposively selected for the purpose. The study was conducted on 25 trainees and 25 non-trainees of the working area of the KVK. The study was conducted in two villages namely Kushalgarh and Kanchankhedi of Piploda block of Ratlam district, where majority of the farmers grow tomato as a commercial crop. After assessing training needs, full package training programme on tomato crop were conducted for selected tomato growers in the villages by KVK, Jaora (Ratlam). In order to measure to impact of the training programme, the farmers were grouped as "trainees and non-trainees and a random sample of 25 farmers from each village was drawn from both of the villages for testing their level of knowledge and extent of adoption by well structured interview schedule. The level of knowledge was categorised as low, medium and high on the basis of scores obtained by ineterview schedule. Adoption was measured with the help of adoption scale developed by Fulzele (1986) with suitable modifications. Scoring was done on the basis of correctness of the responses and scoring was given for full adoption 2, partial adtoption 1, and non

adoption 0 and the total adoption score was calculated accordingly. Adoption behaviour was futher categorized on the basis of total score obtained by the individual respondents for all the recommended practices.

RESULTS AND DISCUSSION

The impact of training programme on the knowledge level of respondents about the tomato crop is presented in Table 1. The data indicate that the majority of the trainess respondents had high (60 per cent) level of knowledge, followed by medium level of knowledge (40 per cent), whereas, in the case of non-trainees, 56 per cent respondents had medium level of knowledge, 36 per cent has low level of knowledge and 8 per cent has high level of knowledge.

It can be said that tomato growers trainees had high level of knowledge than the non – trainees with a view to find out if there is any difference between trainees and non- trainees regarding their knowledge about tomato crop production technology. Null hypothesis was also tested.

The calculated value of 't' was found 4.72 which was greater than table value ot 0.01 probability level for 48 degree of feedom. Hence, Null hypothesis has been rejected and alternate – hypothesis accepted. It is therefore concluded that there was significant difference between trainees and non trainees regarding their knowledge of improved package of practices of tomato crop and trainees had more knowledge than the non-trainees. The impact of training programme on adoption to tomato crop can be assessed better on the basis of number of participants adopting the recommended technology after the training. Keeping this in view, the impact of KVK training in terms of adoption of recommended technology of tomato crop by trainees and non-trainees has been analysed and presented in Tables 2 and 3.

Table 1 : Distribution of respondents of tomato crop according to level of knowledge

Level of knowledge	Trainee		Non- trainee	
	F	per cent	F	per cent
Low (upto 5)	00	00	9	36
Medium (above 5 to 10)	10	40	14	56
High (above 10)	15	60	2	8
Total	25	100	25	100

It is evident from Table 2 that majority of the trainee

Table 2 : Distribution of respondents of tomato crop according to the extent of adoption

Sr. No.	Recommended package of practices	Extent of adoption					
		Trainees			Non - trainees		
		Fully adopted	Partially adopted	Non – adopted	Fully adopted	Partially adopted	Non-adopted
1.	Improved of tomato crop	18(72)	5(20)	2(8)	10(40)	12(48)	3 (12)
2.	Time of sowing	20(80)	3(12)	2(8)	2(8)	12(48)	11(44)
3.	Seed rate	22(88)	2(8)	1(4)	3(12)	10(40)	12(48)
4.	Seed treatment	18(72)	4(16)	3(12)	2(8)	5(20)	18(72)
5.	Time and methods of raising nursery	21(84)	3(12)	1(4)	4(16)	8(32)	13(52)
6.	Spacing R to R, P to P	20(80)	3(12)	2(8)	3(12)	10(40)	12(48)
7.	Raised bed nursery mgt.	18(72)	7(28)	00(0)	2(8)	9(36)	14(56)
8.	Use of organic manure	16(64)	7(28)	2(8)	4(16)	15(60)	6(36)
9.	Chemical fertilizer						
	Nitrogen	22(88)	2(8)	1(4)	20(80)	3(12)	2(8)
	Phosphorus	21(84)	3(12)	1(4)	10(40)	7(28)	8(32)
	Potash	15(60)	8(32)	2(8)	5(20)	8(32)	12(48)
	Micro-nutrient	7(28)	6(24)	12(48)	3(12)	8(32)	14(56)
10.	Earthing	22(88)	3(12)	00(0)	10(40)	12(48)	3(12)
11.	Proper irrigation schedule	21(84)	3(12)	1(4)	11(44)	12(48)	2(8)
12.	Control of weeds	11(44)	12(48)	2(8)	8(32)	10(40)	7(28)
13.	Staking	19(76)	6(36)	00(0)	16(64)	5(20)	4(16)
14.	Following IPM	15(60)	6(24)	00(0)	1(4)	3(12)	21(84)
15.	Following IDM	12(48)	8(32)	5(20)	2(8)	4(16)	19(76)
16.	Spraying of insect./fungicides	18(72)	5(20)	2(8)	2(8)	9(36)	14(56
17.	Use of plant harmone	5(20)	10(40)	10(40)	1(4)	2(8)	22(88)

Table 3 : Distribution of tomato crop respondent according to their extent of adtoption

Sr. No.	Extent of adoption	Trainees		Non-trainees	
		F	per cent	F	per cent
1.	Low (upto 11)	00	00	10	40
2.	Medium (11 to 22)	07	28	14	56
3.	High (above 22)	18	72	01	04
	Total	25	100	25	100

$C^2 = 30.96$

farmers had fully adopted the seed rate (88 per cent), earthing (88 per cent) followed by time and method of raising nursery (84 per cent) proper irrigation (84 per cent) and use of phosphorus (84 per cent), time of sowing (80 per cent), spacing row to row and plant to plant (80 per cent) whereas incase of non-trainees farmers, 80 per cent adopted use of nitrogenous fertilizer, staking 64 per cent, proper irrigation schedule 44 per cent followed by improved variety of tomato 40 per cent, earthing 40 per cent, use of phosphorus 40 per cent and control of weeds 32 per cent, further partially adopted practices by majority of trainee farmers were control of weeds in nursery and tomato field (48 per cent) use of plant harmone (40 per cent) followed by staking (36 per cent) IDM (32 per cent), use of potash 32 per cent, nursery management 28 per cent use of organic manure 28 per cent, IPM 24 per cent and use of micronutrients 24 per cent. Non-adoption of recommded practices by trainees farmers used micro nutrients (48 per cent), use of plant harmone (40 per cent) and following IDM (20 per cent). Whereas, incase of non-trinees farmers, non-adoption of recommended technology was 88 per cent of use of plant harmone, 84 per cent followed IPM, 76 per cent followed IDM and seed treatment 72 per cent.

Table 3 indicates that most of the trainee (72 per cent) had higher level of adoption followed by medium level (28 per cent), whereas most of the non trainees had medium level of adoption (56 per cent). If there is any difference between trainees and non-trainees as regards the adoption of package of practices related to tomato crop, the Null hypothesis has been also tested.

It has been also found that calculated value of c^2 = (30.96) and 't' value 7.78 are both significant at one per cent level of significance. Hence, Null hypothesis has been rejected and alternate hypothesis accepted. It means that there is significant difference between trainees and non – trainee regarding extent of adoption of recommended package of practices of tomato crop and thus it is concluded that tomato farmers trainees had higher mean score than the non-trainees. This finding is support to finding of Sharma *et al.* (2000).

Authors' affiliations:
MOHD. MUSTAFA, Department of Agricultural Extention, Krishi Vigyan Kendra, Kalukheda, Jaora, RATLAM (M.P.) INDIA
D.P. RAI, M.G. Chitrakoot Gramodyog Vishwavidyalaya, Chitrakoot, SATNA (M.P.) India

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