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Perceptions of Trainees about Integrated Pest Management Training

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INTRODUCTION

Globalization and increased international competitiveness have led to the restructuring of economies of numerous countries, in the recent past. In the process technology has come to be widely regarded as a major factor contributing to the growth and development of the organization as well as countries. The economic development is very much dependant upon appropriate policies and continuous Upgradation of technology, both at macro and organization levels. In this process the most crucial factor in the successful transfer and absorption of technology, is the capacity and skill of the human resources to assimilate and develop new technologies.

In this world of knowledge explosion and scientific advancement, extension workers should be in a position to be familiar with the latest knowledge and techniques for imparting effective education with good confidence. In-service training helps them to keep to touch with the growing knowledge and techniques in addition to the primary role of pre-service education.

Training is one of the effective methods of transfer of technology and plays an important role in updating the knowledge of extension personnel in the latest farm technologies. The KVK is engaging in imparting training to the extension functionaries in different aspect of agriculture. Evaluation of such training programme will enables the organization top further strengthen these programmes based on the feedback on various aspects of training. Hence this study has been taken up with a view to evaluate the effectiveness of integrated pest management trainings. The present study was carried out with following objectives.

1. To find out the level of knowledge gained by the participants after the training programme.
2. To know the perception of participants about quality of training.
3. To seek the suggestions of the trainees to improve the training programme.
4. To study the relationship between knowledge and personal characteristics of the trainees.

MATERIAL AND METHODS

During the last week of August 2012 a two days training programme on Integrated Pest Management was organized at KVK Dewas. A total of 50 extension officers, who have participated in this training programme were treated as respondents.

In the present study, knowledge denotes the participants understanding about integrated pest management practices. The data were collected with the help of semi structured schedule. The schedule was administered to the respondents before and after conducting the training programme in order to quantify the knowledge gain. Based on the mean and standard deviation, the respondents were classified into three groups as low (<mean- S.D.), medium (> mean -S.D. and < mean + S.D.) and high (>mean + S.D.). Quality of training programme was measured by taking into account the impression of participants about various aspects of training, viz.- subject, topic, level of skill training, participation in discussion, use of audio-visual aids and overall quality of training recorded on three point continuum. Correlation coefficient was used to find out the relationship between knowledge and independent variables.

RESULTS AND DISCUSSION

The data presented in table 1 revealed that the majority of extension officers had low to medium knowledge about integrated pest management practices in soybean crop. Only 12.00 per cent

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participants had high knowledge before acquiring the training, while 54 per cent trainees had high knowledge after training programme. It is also evident from the table that only 18 percent participants having least knowledge after training.

It could be observed from table 2 that there was significant increase in knowledge on IPM by the extension personnel at the end of the training programme. The knowledge index of participants before and after the training were 48.93 and 85.31 respectively. The calculated "t" value was significant at 0.01 level of significance.

On the basis of above findings it could be inferred that knowledge level of extension officers before and after training differ significantly as per their mean knowledge score.

On the basis of these observations, it can be said that the knowledge level of the extension officers after training programme was higher than their pre training knowledge. It could be referred to impact of training programme. These findings are in the line with the findings of Mahipal and Prasad (1995).

Quality of training as perceived by the participants

This aspects though looks minor but can leads to adverse results, if not managed properly. Frequency distribution of the respondents based on their opinions about the training methodology, contents and its courage etc. are presented in the table 3. Usefulness of training subject is very important aspect since it has direct link with the enhancement / updating of knowledge, learning new skills etc. data presented in table revealed that 70 percent officers rated that subject of training was very important for them.Regarding topic set for discussion in training programme, the majority (66%) of the participants perceived that the few topics were new while 25 percent reported that some of them were new for them.

As regard the appropriateness of subject matter, 58 percent respondents were perceived that the subject matter were moderately suitable, while 34 percent reported that it was highly suitable for them, because the major kharif crop of the area i.e. soybean was affected by various leaf feeders and stem insects. As regard the level of skill imparted in training, 78 percent of respondents perceived that the level of skill training was very good. The skill was transferred by various methods such as how to prepare spray solution, spray method, identification of beneficial and harmful insects in field. 22 percent respondents perceived that the level of skill training was good.

The data in table 3 also revealed that, majority (64 percent) of participants reported that the interaction between trainers and trainees was of high level because all the trainers were well aware about interaction / discussion with participants, they were encouraging trainees to participate in discussion.

About relevancy of reading material majority (68%) of respondents feet that the reading material given in training programme were very relevant to relevant this migh be due to the literature distributed in this training programme covered all the major insects of soybean, their nature of damage, marks of identification, life cycle and various control measures. The literature on IPM was also provided to the participant trainees.

An attempt was made in the study to see the perception of the trainees on the use of different audio visual aids / training tools utilized by the resource persons. It was found that more than 87 percent resource persons used various kind of audio visual aids to enlighten on their topic. This shows that the use of audio visual aids in the training was of high order in dealing with lecture.

As regard the overall quality of training 70 percent trainees were reported that the training was very good, while 30 percent trainees reported that training was good. This shows that topic included in training, methods used were not very new but were delivered with relevance and technological advances. This reflects on the good performance of resource persons.

Relationship between knowledge and selected independent variables

The correlation coefficient values were computed on the basis of the scores obtained by the participants. The results obtained have been given in the table 4.

The coefficient of correlation between the age and knowledge about integrated pest management practices showed a negative and non-significant correlation which indicate that with advancement of age the knowledge about IPM declines.. This finding gets support from the study conducted by Lahariya Koshti (2014).

The correlation coefficient between type of family and knowledge was positively correlated. It can thus be concluded that type of family had significant impact over the knowledge. These results are in conformity with the result of Kumari and Sinha (1995). The relationship between the education and knowledge level was found to be significant at 0.01 level. This indicate that as the education increases, the knowledge horizon of the extension officers is

broadened. It is concluded that the better the formal education of the respondents more the knowledge he possessed about the innovation. It is supported by Rai *et al*. (1987) and Shakharkar *et al*. (1992).

It was observed that service experience was significantly and positively correlated with knowledge of integrated pest management practices. This indicate that as the tenure of service increases the extension workers able to know the dangerous hazards of chemicals, hence they are acquiring more information about bio-logical and agronomical methods of pest control in the cropthese finding were supported by Soni and Singh (2014).

The distance of head quarter from district / block has significant impact on knowledge level of extension officers. It is clear that the extension officer living at district / block level, having more knowledge. It might we due to the fact they are having more exposure to training, literature and contact with senior officer etc. which leads to increases in knowledge.

The correlation coefficient between training / exposure and knowledge of integrated pest management practices was positively significant at 0.01 percent level of significance. It could be interpreted as the training is important assets of extension officers, because training may help extension officers to acquire more and more knowledge about improve methods of pest management.

From the above discussion it is clear that the integrated pest management programme was successful in fulfilling the objective of inculcating knowledge and skill and thereby bringing behavioural changes for preparing them technologically sound for the field work, where they are expected to give more output. However, some suggestion were received form the trainees for improvement in such type of training.

Suggestions of the Trainees

The trained extension personnel's were also asked to suggest the measures for improving farmers training programme. The compiled responses from them were presented in table 5. Table reveals that the each training programme must start with filed visit, as the most important measure for improving the training programme and ranked as first. The other measures suggested by the extension officers are during training programme. KVK must distribute printed information / material about the subject matter (ranked II). Training programme in KVK should conducted by external experts on the subject together with regular KVK trainers for better exposure and experiences, each training programme must start with skill training and trainers must use audio – visual and other technical aids during the training programme to make the training session interesting as ranked – III, IV and V respectively these findings were supported by the findings of Godawant and Upadhyay (2011).

Other suggestion as made by the extension officers are very important and KVK must put sincere efforts to consider these measures to make their training programmes very effective, efficient and useful to its clients.

CONCLUSION

This study was conducted to evaluate the impact of training on the knowledge level of extension officers of state agriculture department. The knowledge level of trainees after training programme was higher than their pre-training knowledge. The values of correlation coefficient between knowledge and type of family, educational qualification, service experience, head quarter and training exposure were positive and significant, while its relation with age was negative and non-significant. The overall quality of training was very good as it was perceived by sixty percent trainees. Respondents suggested that each training programme must start with field visit.

Table 1
Knowledge level of Extension Officer

S. No.	*Categories of knowledge*	*Before Training*		*After Training*	
		Freq.	*percentage*	*Freq.*	*percentage*
1	Low	26	52.00	09	18.00
2	Medium	18	36.00	14	28.00
3	High	06	12.00	27	54.00
	N =	50		50	

Table 2
Knowledge gain of participants in Training Programme

S. No.	*Particular*	*Before Training*	*After Training*
1	Total knowledge score	1957.5	3412.5
2	Mean knowledge score	39.12	68.25
3	Knowledge index	48.93	85.31
4	Sd	5.045	6.25
5	CV	1.042	0.802
6.	Mean difference in knowledge	29.1	
7.	Percentage change in knowledge.	42.63	
	"t" Value	9.543 *	

* - Significant at 0.01 level

Table 3
Quality of training as perceived by the Trainees.

S. No.	Particular	Freq.	% N = 50
1.	Subject of training		
	A. Very important	35	70.00
	B. Important	12	24.00
	C. Somewhat important	03	6.00
2.	Topics set for discussion		
	A. Entirely new	33	66.00
	B. Partly new	11	22.00
	C. Few topic new	06	12.00
3.	Appropriateness of subject matter		
	A. Highly suitable	29	58.00
	B. Moderately suitable	18	36.00
	C. suitable to some extent	03	06.00
4.	Level of skill training		
	A. Very good	39	78.00
	B. Good	11	22.00
	C. Poor	00	00
5.	Participation is discussion		
	A. Very good	32	64.00
	B. Good	18	36.00
	C. Poor	00	00
6.	Relevancy of reading material		
	A. Very relevant	34	68.00
	B. Relevant	14	28.00
	C. Not relevant	02	04.00
7.	Appropriate use of A.V. aids		
	A. Very good	34	68.00
	B. Good	14	28.00
	C. Poor	02	04.00
8.	Overall quality of training		
	A. Very good	35	70.00
	B. Good	15	30.00
	C. Poor	00	00

Table 4
Correlation between knowledge and selected independent variable of the participants

S. No.	Independent Variable	Correlation Coefficient "r" values
1	Age	- 0.045 ^{NS}
2	Type of family	0.892 ^{xx}
3	Educational qualification	0.396 ^{xx}
4	Service experience	0.551 ^{xx}
5	Distance of posting from district head quarter	0.683 ^{xx}
6	Training exposure	0.650 ^{xx}

NS = Non – significant
xx = Significant at 0.01 level of probability

Table 5
Suggestions given by trainees for improving training programmes.

S. No.	Opinion / statements	%	Freq.	Rank
1	Each training programme must start with field visit	72.00	38	I
2	KVK must organize long duration training	28.00	14	VI
3	Trainers must use audio-visual and other teaching aids during the training programme to make the training session interesting	32.00	16	V
4	During training programme KVK must distribute printed information / material about the subject matter	58.00	29	II
5	Training programme in KVK should be conducted by external experts on the subject together with regular KVK trainers for better exposure and experiences	48.00	24	III
6	Each training programme must start with skill training	36.00	18	IV
7	Every training programme of KVK should have monitoring and evaluation	12.00	6	VII

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