

Effect of Training Programme on Knowledge and Adoption Behaviour of Farmers on Wheat Production Technologies

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ABSTRACT

A study was conducted to ascertain the level of knowledge and adoption behavior of the farmers with respect to wheat production technologies due to training imparted by Krishi Vigyan Kendra, Allahabad. Farmers were selected from the four villages namely Hathigon from Chaka block, Tikarikala, Pander and Sujauna from Jasara block and imparted training on scientific wheat production technologies. Twenty-five trainees and equal number of non-trainees were randomly selected making the sample size of 50 farmers. It was found that trainees had high level of knowledge (100 %) whereas in case of non-trainees, 52% high level, 44 % medium level and only 4 % with low level of knowledge. There was a significant difference between trainees and non-trainees regarding the knowledge about the package of practices of wheat crop. The study also revealed that most of the trainees (84 %) had higher level of adoption followed by medium level (16 %) whereas, most of the non-trainees had medium level of adoption (64 %) followed by low level of adoption (32 %). This indicates that there had been a significant difference between trainees and non-trainees regarding the extent of adoption of package of practices of wheat crop. Trainees had higher level of adoption of recommended package of practices as also higher mean scores than the non-trainees. Thus, it could be concluded that the trainees had more knowledge and extent of adoption of package of practices of wheat crop than non-trainees. The KVK should organize more number of training programmes for maximum benefit of the farmers.

Key words : Adoption behaviour; Wheat production technology

Human resource is the most precious resource for any country. It is, however, not the numerical but the qualitative strength of the people which forges a country ahead towards progress and prosperity. It is basically the development of human resources that brings about socio-economic or political-cultural transformation of any society. One of the main tasks of Krishi Vigyan Kendra is to provide and improve the knowledge of the trainees about the improved farm practices, because knowledge is cognitive component of individual's mind and plays an important role in covert as well as overt behaviour and individuals with a greater knowledge of technical nature of improved practices would lead to a high adoption. Lack of correct and inadequate knowledge leads to under or over adoption of innovation which proves fatal to the farming business.

Adoption is a process where succession of events in a sequence of time. Wilkening (1950) stated that the farmer's decision for adoption of improved farm practices may be considered as a process in which he (a) hears about the practice, (b) discusses its advantages and disadvantages with other farmers or with experts, (c) makes the decision to adopt the practice and obtains the

specific information necessary to carry out the practice. This process may occur over a period of time. Degree of adoption of any item of package may be of complete or full, partial and non-adoption. In this study, adoption means the degree of actual use of any recommended package of practices of wheat crop.

Attention was, therefore focused in this study to analyze as to what extent of the training programme affected the level of knowledge and extent of adoption of recommended package of practices on wheat crops of its trainees. This involved the process of relating and judging the extent, the respondent was expected to ensure questions, which were posed in the test situation than the learning situation.

METHODOLOGY

KVK Allahabad was purposively selected for the purpose. the enquiry was conducted on 25 trainees and 25 non-trainees of the covering area of the KVK. In this study, wheat being the important cereal crop was considered for the investigation. The study was carried out in four villages viz, Hathigon from Chaka, Tikari Kala, Pander, and Sujauna of Jasara blocks under the domain

of KVK Allahabad, where most of the farmers were growing wheat crop. After assessing the training needs, complete package of training programme on wheat was given to wheat growers in each village by the KVK Allahabad. In order to measure the impact of the training programme, the farmers were grouped as 'trainees' and 'non-trainees' and a random sample of 25 farmers from each group was drawn from four villages for testing their level of knowledge and extent of adoption by means of a well structured scheduled.

RESULTS AND DISCUSSION

Knowledge level of respondents about wheat crop: Data (Table1) shows that the trainees had high level of knowledge (100 %). In case of non-trainees, 52 % of respondents had high level, 44 % medium level and only 4 % low level of knowledge. It reflects that wheat grower's trainees were having high level of knowledge than the non-trainees.

Table 1: Distribution of respondents of wheat crop

Category	Trainees		Non-trainees	
	f	%	f	%
Low (Up to 10)	00	00	01	04
Medium (10 up to 20)	00	00	11	44
High (Above 20)	25	100	13	52
Total	25	100	25	100

In order to find out if there is any difference between trainees and non-trainees as regards their knowledge about wheat crop the null hypothesis (Ho) was tested. The calculated value of 't' was found to be 6.29, which was greater than table value at 0.01 probability level for 48 degree of freedom. Hence, the null hypothesis was not accepted and alternate hypothesis was accepted. There is significant difference between trainees and non-trainees regarding the knowledge about the package of practices of wheat. Trainees had greater knowledge about wheat technology than the non-trainees. This finding is in conformity with the findings of Haque (1975), Fulzele (1986) and Ratna Sree (1992).

Adoption of Improved Practices in Wheat Crop: Table 2 shows that all the trainees were fully adopted the high yielding varieties of wheat crop, using recommended dose of nitrogen, phosphorous and followed by timely irrigation (96 %), grow high yielding varieties of wheat according to their sowing time (92 %) followed by the seed rate according to scientific recommendation (88 %). Whereas, non-trainees adopted 84 % high yielding varieties of wheat crop, 80 % used recommended dose of nitrogen and 64 % of phosphorous, followed by the timely irrigation 44 %, 16 % grow high yielding varieties according to their sowing time followed by 20 % who adopted the seed rate according to scientific recommendation.

Table 2. Distribution of respondents of wheat crop according to the extent of adoption

S. No.	Statement	Extent of adoption					
		Trainees			Non-Trainees		
		Fully adopted	Partially adopted	Non-adopted	Fully adopted	Partially adopted	Non-adopted
1	Did you grow high yielding varieties of wheat crop?	25 (100)	00 (00)	00 (00)	21 (84)	04 (16)	00 (00)
2	Did you follow seed treatment?	12 (48)	01 (04)	12 (48)	01 (04)	00 (00)	24 (96)
3	Do you grow high yielding variety of wheat according to their sowing time?	23 (92)	01 (04)	01 (04)	04 (16)	03 (12)	18 (72)
4	Do you follow the seed rate according to scientific recommendation?	22 (88)	03 (12)	00 (00)	05 (20)	04 (16)	16 (64)
5	Do you follow the right time of sowing?	20 (80)	05 (20)	00 (00)	12 (48)	09 (36)	04 (16)
6	Do you follow the sowing depth of wheat?	17 (68)	08 (32)	00 (00)	06 (24)	11 (44)	08 (32)
7	Do you follow the intercropping ratio 9:1 of wheat and mustard crop?	20 (80)	04 (16)	01 (04)	05 (20)	06 (24)	14 (56)
8	Line sowing method of wheat followed is;	19 (76)	06 (24)	00 (00)	19 (76)	06 (24)	00 (00)
9 a)	Have you used the following bio-fertilizers Azotobacter?	13 (52)	05 (20)	07 (28)	01 (04)	01 (04)	23 (92)
b)	PSB	07 (28)	06 (24)	12 (48)	00 (00)	00 (00)	25 (100)
10	Have you used the organic manure?	04 (16)	21 (84)	00 (00)	02 (08)	16 (64)	07 (28)
11 a)	Did you use the following chemical fertilizer? Nitrogen	24 (96)	01 (04)	00 (00)	20 (80)	04 (16)	01 (04)
b)	Phosphorus	24 (96)	01 (04)	00 (00)	16 (64)	09 (36)	00 (00)
c)	Potash	14 (56)	08 (32)	03 (12)	01 (04)	16 (64)	08 (32)
12	Did you follow the time of irrigation?	24 (96)	01 (04)	00 (00)	11 (44)	09 (36)	05 (20)
13	Did you control weeds in wheat crops?	13 (52)	12 (48)	00 (00)	05 (20)	02 (08)	18 (72)
14	Did you follow plant protection measures?	09 (36)	10 (40)	06 (24)	01 (04)	00 (00)	24 (96)
15	Did you follow up the moisture content percentage at the time of harvesting?	18 (72)	06 (24)	01 (04)	05 (20)	10 (40)	10 (40)

Further, partially adopted practices by majority of trainees were using organic manure (84 %), control of weeds (48 %), adopted plant protection measures 40 % followed by depth of sowing of wheat and used recommended dose of potash (32 %). Whereas, in the case of non-trainees partially adopted 64 % used organic manure and potash, 8 % controlled weeds in wheat crops, none of the non-trainees adopted plant protection measures and 44 % adopted depth of sowing of wheat.

Non-adoption of recommended practices by trainees were seed treatment and use of *PSB* (48 %), use of *Azotobactor* (28 %), plant protection measure (24 %) followed by use of potash (12 %), whereas in case of non-trainees, non-adoption of recommended technologies were 96 % seed treatment, and plant protection measures, 92% used *Azotobactor*, followed by 32% used potash.

Data (Table 3) reveals that most of the trainees (84 %) were found to be higher level of adoption followed by medium level (16 %), whereas, most of the non-trainees have had medium level of adoption (64 %) followed by low level of adoption (32 %).

Table 3: Distribution of wheat respondents according to their extent of adoption

S. No.	Extent of adoption	Trainees		Non-trainees	
		f	%	f	%
1	Low (Up to 12)	00	00	08	32
2	Medium (Above 12 up to 24)	04	16	16	64
3	High (Above 24)	21	84	01	04
	Total	25	100	25	100

‘x²’cal. = 33.38

It was also found that calculated value of χ^2 was 33.38 and calculated value of ‘t’ was 11.28 both were significant at 1% level of significance. Hence, null hypothesis was not accepted and alternate hypothesis was

accepted. It means that there is significant difference between trainees and non-trainees regarding the extent of adoption of package of practices of wheat crop. It shows that wheat trainees had higher level of adoption of recommended package of practices as also higher mean scores than the non-trainees. The present results is in line with the findings of Rade and Patil (1987); Reddy *et al.* (1991); Singh and Singh (1991) and Latoria *et al.* (2001).

Knowledge Level of Respondents of Wheat Crop: In this case, all the trainees have high level of knowledge (100 %); whereas in case of non-trainees, 52 % correspond to high level of knowledge, 44 % to medium level of knowledge while only 4 % low level of knowledge. There has been significant difference between trainees and non-trainees regarding the knowledge about the package of practices of wheat crop. Trainees had greater knowledge about wheat technologies than the non-trainees.

Adoption of Improved Practices in Wheat Crop: Most of the trainees (84%) have had higher level of adoption followed by medium level (16%), whereas, most of the non-trainees have had medium level of adoption (64%) followed by low level of adoption (32%). It shows that trainees were having higher level of adoption of recommended package of practices than the non-trainees.

CONCLUSION

It is concluded that KVK is able to bring significant changes in the level of knowledge and adoption of wheat production technologies among trainees. Training and guidance given to trainees have played prime role in influencing technological changes, besides management orientation. Therefore, there is need give thrust ob these factors with suitable changes in training curriculum and time by the scientists for fulfilling the objective of KVK training programmes.

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