



P-ISSN: 2349-8528  
E-ISSN: 2321-4902  
IJCS 2019; SP6: 572-574

**Satya Pal Singh**  
Sr. Scientist/Head KVK  
Chandauli, Narandra Dev  
University of Agricultural and  
Technology, Ayodhya, Uttar  
Pradesh, India

**Arvind Kumar Singh**  
Sr. Scientist/Head KVK  
Santkabeer Nagar, Narandra  
Dev University of Agricultural  
and Technology, Ayodhya, Uttar  
Pradesh, India

**Ritesh Singh**  
SMS Agronomy KVK Chandauli,  
Narandra Dev University of  
Agricultural and Technology,  
Ayodhya, Uttar Pradesh, India

(Special Issue -6)  
3<sup>rd</sup> National Conference  
On

**PROMOTING & REINVIGORATING AGRI-HORTI,  
TECHNOLOGICAL INNOVATIONS  
[PRAGATI-2019]  
(14-15 December, 2019)**

**Study of training programme on adoption behaviour  
and knowledge of farmers on paddy cultivation  
technologies**

**Satya Pal Singh, Arvind Kumar Singh and Ritesh Singh**

**Abstract**

A study was conducted to ascertain the level of knowledge and adoption behavior of the farmers with respect to paddy cultivation technology due to training by Krishi Vigyan Kendra Haidergarh, Barabanki, and Uttar Pradesh. Farmers were selected from the five villages namely Hetampur from Masoli Block, Sansara and Bijapur from Haidergarh block Devgarhpur and Tajwapur from Trivediganj block and impact training on scientific paddy cultivation technologies. Twenty five trainees and equal number of non-trainees were randomly selected making the sample size 50 farmers. It was found that trainees had high level of knowledge (80%) whereas in case of non-trainees, 56% high level, 40% medium level and only 8% with low level of knowledge. There was a significant difference between trainees and non-trainees regarding the knowledge about the package of practices of paddy crop. The study also revealed that most of the trainees (88%) had higher level of adoption followed by medium level (12%) 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 paddy crop. Trainees had higher level of adoption of recommended packages of practices as also higher mean score than the non-trainees. Thus, it could be concluded that trainees had more knowledge and extent of adoption of package of practices of paddy crop than non-trainees. The KVK Haidergarh District Barabanki should organize more number of training programme for maximum benefit of the farmers.

**Keywords:** adoption behavior, knowledge, paddy cultivation technology

**Introduction**

Human resource is the most precious 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 improved 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 behavior 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) [8] stated that farmer's decision for adoption of improved farm practices may be considered as process in which he (a) hears about the practices (b) discusses its advantages and disadvantages with other farmer's or with expert, (c) makes the decision to adopt the practices and obtains the specific information necessary to carry out the practice.

**Corresponding Author:**  
**Satya Pal Singh**  
Sr. Scientist/Head KVK  
Chandauli, Narandra Dev  
University of Agricultural and  
Technology, Ayodhya, Uttar  
Pradesh, India

This process may occur a period of time. Degree of adoption full, partial and non-adoption. In this study, adoption means the degree of actual use of any recommended package of practices of paddy 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 paddy crops of its trainees. This involved the process of relating and judging the extent, the respondent was expected to ensure question, which were posed in the test situation than the learning situation.

### Methodology

KVK Haidergarh, Barabanki was purposively for the purpose the enquiry was conducted on 25 trainees and 25 non-trainees of the covering area of the KVK. In this study, paddy being the important cereal crop was considered for the investigation. The study was carried out in five villages viz, Krishi Vigyan Kendra Haidergarh, Barabanki, Uttar Pradesh. Farmers were selected from the five villages namely Hetampur from Masoli Block, Sansara and Bijapur from Haidergarh block Devgarhpur and Tajwapur from Trivediganj block under the KVK Barabanki, where most of the farmers were growing paddy crop. After assessing the training needs, complete

of any item of package may be of complete or, package of trainees programme on paddy was given to paddy growers in each veggie by the KVK Barabanki. 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 five village for testing their level of knowledge and extent of adoption by means of a well-structured scheduled.

### Results and Discussion

Knowledge level of respondent about paddy crop: Data (Table 1) shows that the trainees had high level of knowledge (80%) medium level 12 % and 8% of low level of knowledge respectively. In case of non-trainees, 56% of respondents had high level, 40% medium level and only 4% low level of knowledge. It reflects that paddy grower's trainees were having high level of knowledge than the non-trainees.

**Table 1:** Distribution of respondent of paddy crop

| Category             | Trainees |    | Non-trainees |    |
|----------------------|----------|----|--------------|----|
|                      | F        | %  | F            | %  |
| Low (Up to 10)       | 02       | 08 | 01           | 04 |
| Medium (10 up to 20) | 03       | 12 | 10           | 40 |
| High (Above 20)      | 20       | 80 | 14           | 56 |

**Table 2:** Distribution of respondents of paddy 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                                  | 20 (80)            | 3 (12)            | 2 (08)      | 20 (80)       | 05 (20)           | 01 (04)     |
| 2.     | Did you follow seed treatment   | 13 (125)           | 05 (40)           | 07 (28)     | 3 (12)        | 2 (08)            | 20 (80)     |
| 3.     | Did you grow high yielding variety of paddy according to their timely transplanting | 18 (72)            | 03 (12)           | 04 (16)     | 07 (28)       | 04 (16)           | 14 (56)     |
| 4.     | Do you follow the seed rate according to scientific recommendation                  | 20 (80)            | 05 (20)           | 00 (00)     | 06 (24)       | 04 (16)           | 17 (68)     |
| 5.     | Do you follow the right time of transplanting                                       | 19 (76)            | 05 (20)           | 01 (04)     | 14 (56)       | 08 (32)           | 03 (12)     |
| 7.     | Line to line transplanting method of paddy followed is                              | 17 (68)            | 05 (20)           | 03 (12)     | 15 (60)       | 09 (36)           | 02 (08)     |
| 8. a)  | Have you used the following bio-fertilizers Azotobactor                             | 13 (52)            | 07 (28)           | 05 (20)     | 02 (08)       | 03 (12)           | 20 (80)     |
| b)     | PSB   | 06 (24)            | 06 (24)           | 13 (52)     | 00 (00)       | 00 (00)           | 25 (100)    |
| 9.     | Have you use of organic manure  | 05 (20)            | 18 (72)           | 02 (08)     | 02 (08)       | 17 (68)           | 08 (32)     |
| 10. a) | Did you use the following chemical fertilizer? Nitrogen                             | 23 (92)            | 02 (08)           | 00 (00)     | 22 (88)       | 02 (08)           | 01 (04)     |
| b)     | Phosphorus  | 24 (88)            | 01 (04)           | 00 (00)     | 18 (72)       | 04 (16)           | 01 (04)     |
| c)     | Potash  | 00 (00)            | 10 (40)           | 15 (60)     | 00 (00)       | 15 (60)           | 10 (40)     |
| 11.    | Did you follow the time of irrigation   | 22 (88)            | 02 (08)           | 03 (12)     | 17 (68)       | 06 (24)           | 02 (08)     |
| 12.    | Did you control weeds in paddy crops  | 12 (48)            | 13 (52)           | 00 (00)     | 05 (20)       | 04 (14)           | 16 (64)     |
| 13.    | Did you follow plant protection measures  | 08 (32)            | 10 (40)           | 07 (28)     | 07 (28)       | 00 (00)           | 18 (72)     |
| 14.    | Did you follow up the moisture content percentage at the time of harvesting         | 17 (68)            | 06 (24)           | 02 (08)     | 00 (00)       | 01 (04)           | 24 (96)     |

In order to find out if there is any difference between trainees and non-trainees as regarding their knowledge about paddy 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 accepted. There is significant difference between trainees and non-trainees regarding the knowledge about the package of practices of paddy. Trainees had greater knowledge about paddy cultivation technology than the non-trainees. This finding is in conformity with the findings of Haque (1975) [2], Fulzele (1986) [1] and Ratna Sree(1992) [5]. Adoption of improved practices in Paddy crop: Table 2 show that all trainees were fully adopted the high yielding varieties of paddy crop, using recommended dose of nitrogen, phosphorous and followed by timely irrigation (92%), grow

high yielding varieties of paddy according to their timely transplanting (72%) followed by the seed rate according to scientific recommendation (80%). Whereas, non-trainees adopted 80% high yielding varieties of paddy crop, 88% used recommended dose of nitrogen and 72 % of phosphorus, followed by the timely irrigation 68% 28% grow high yielding varieties according to their timely followed by 24% who adopted the seed rate according to scientific recommendation. Further, partially adopted practices by majority of trainees were using organic manure (72%), control of weed (52%), adopted plant protection measures 40% followed by line to line transplanting of paddy and used recommended dose of potash (40%). Whereas, in the case of non-trainees partially adopted 68% used organic manures and potash, 14 % controlled weeds in paddy crops none of the

non-trainees adopted plant protection measures and 36% adopted line to line transplanting of paddy. On-adopted of recommended practices by trainees were seed treatment and use of PSP (52%), use of *Azotobacter* (20%) plant protection measures (28%) followed by use of potash (60%), whereas in case of non-trainees, non-adoption of recommended technologies were 96% seed treatment, and plant protection measures, 80% used *Azotobacter*, followed by 40% used potash. Data (Table 3) reveals that most of the trainees (88%) were found to be higher level of adoption followed by medium level (12%), whereas, most of the non-trainees have had medium level of adoption (64%) followed by low level of adoption (32%).

**Table 3:** Distribution of paddy cultivation 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) | 03       | 12 | 16           | 64 |
| 3.    | High (Above 24)            | 22       | 88 | 01           | 04 |
| 4.    | Total                      |          |    |              |    |

$$X^2_{cal.} = 35.38$$

It was also found that calculated value of  $\chi^2$  was 35.35 and calculated value of 't' was 12.25 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 paddy crop. It shows that paddy trainees had higher level of adoption of recommended packages 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) [4], Reddy *et al.* (1991) [6], Singh and Singh (1991) [7] and Latoria *et al.* (2001) [3]. Knowledge level of Respondents of Paddy Crop: Knowledge Level of Respondents of Paddy Crop: In this case, all the trainees have high level of knowledge (80%); whereas in case of non-trainees, 56% correspond to high level of knowledge, 40 % to medium level of knowledge while only 8% low level of knowledge. There has been significant difference between trainees and non-trainees regarding the knowledge about the package of practices of paddy crop. Trainees had greater knowledge about paddy cultivation technologies than non-trainees. Adoption of Improved Practices in Paddy Crop: Most of the trainees (88%) have had higher level of adoption followed by medium level (12%) whereas, most of the non-trainees have had medium level of adoption (64%) followed by low level of adoption (34%). 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 Haidergarh Barabanki, is able to bring significant changes in the level of knowledge and adoption of paddy cultivation 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 job these factors with suitable changes in training curriculum and time by the scientists for fulfilling the objective of KVK Haidergarh, Barabanki training programmes.

## References

1. Fulzele RM. Multidimensional analysis of training programme of Krishi Vigyan Kendra. Unpublished Ph.D. thesis, Kurukshetra University, NDRI, Karnal. 1986.
2. Haque MS. Impact of farmers training programme on adoption behavior of farmers. Unpublished MSc. (Ag.) thesis, Division of Extension Education, BAC, Sabour. 1975.
3. Latoria SK, Jaulkar AM, Sharma SK. Knowledge level of trained and untrained farmers and problems as perceived by trained farmers. Karnataka Journal of Agricultural Sciences, XIV. 2001; 4:1127-1129.
4. Rade VM, Patil VG. A study of impact of training offered by Krishi Vigyan Kendra on adoption of improved cultivation practices of major crops by tribal farmers from Dhule district. Agresco, Res. Study, A.C. Dhule. 1987.
5. Ratna Sree A. Impact of training on knowledge and adoption of recommended practices of mushroom cultivation among the farmers of Bapatala tract, Guntur district. Unpublished M. Sc. (Ag) thesis, Agricultural College, Bapatala, 1992.
6. Reddy P, Kumar R, Narsimha Reddy. Training programmes impact on knowledge, attitude and adoption level of trained and untrained farmers. Paper presented in seminar on "Training for rural development: Prospects and Retrospect's" held at Directorate of Extension Education, Kokan Krishi Vidyapeeth, Dapoli, 1991; 291:22-23.
7. Singh AK, Singh SK. Changing training needs and presented training programmes. Paper presented in seminar on "Training for rural development: Prospects and Retrospect's" held at DEE, Kokan Krishi Vidyapeeth, Dapoli, 1991; 172: 22-23.
8. Wilkening EA. Sources of information for improved farm practices. Rural Society, 1950, 15:1.