Ashok Kumar, International Journal of Advances in Agricultural Science and Technology,
Vol.2 Issue. 2, February- 2014, pg. 34-40 **ISSN: 2348-1358**

Effect of KVK Interventions on Knowledge and Adoption of Scientific Rice Production Technologies

Ashok Kumar[1]*
Krishi Vigyan Kendra, Araria
Bihar Agricultural University, Sabour, Bhagalpur, Bihar
***Corresponding Author's e**mail: drashokagriscientist@gmail.com

[1]Ashok Kumar, SMS (Extension Education), KVK, Araria (Bihar)

ABSTRACT: ***The present study was concentrated at Krishi Vigyan Kendra, Araria. For the selection of respondents, out of a total of 857 beneficiaries of various Programmes of KVK, Araria (during the year 2012-13), 100 respondents (20 respondents from each five adopted villages) were selected randomly. A questionnaire was prepared and after that data related were collected through personal interview. The data collected were processed, tabulated and analysed by using appropriate statistical tools like percentage. Here, a total of thirteen improved practices were selected as criteria to evaluate the respondents for extent of knowledge gained and adoption of paddy production technologies as a result of various interventions of KVK, Araria i.e. On Farm Trials (OFT), Frontline Demonstrations (FLD), Trainings, Field Days, Kisan Choupals, Diagnostic visits, Exposure Visits, Popular articles and lecture delivered as resource person. A perusal of the table-3 indicates that after intervention of KVK, maximum percentage of gain in knowledge was 86% but technology adoption was 69% in Water management followed by 83% and 52% in seed treatment; 79% & 27% in Harvesting techniques;74% & 59% in Methods and time of transplanting; 68% & 51% in Methods of raising seedling; 62% & 47% in Field preparation; 58% & 35% in Field preparation; 54% & 45% in Integrated nutrient management;51% & 31% in Post-harvest management; 41% & 36 in Weed management; 36% & 31% in Integrated pest management; 53% & 24% in Selection of variety and the least was 32% & 27% in Integrated disease management.***
KEYWORDS: Knowledge, Adoption and Interventions of Programme

INTRODUCTION

Agriculture is backbone of the Bihar state where more than 80% of its population living in rural areas are engaged in agriculture and allied sectors contributes significantly to the Indian economy. Rice is cultivated in all districts of Bihar. Autumn rice, aghani rice, and summer rice are three different varieties of rice grown at three different times of the year. The average production of rice is around 5 million tonnes each year. The district of Araria is in the extreme eastern part of the middle Ganga plain. Araria district's economy is primarily based on agricultural production. The important rabi crops are wheat, barley, gram, peas, mustard, linseed, potato etc. The millets, maize, arhar, rice and sugarcane etc. are the main crops of Kharif season. About 44.75 per cent area is

under Paddy, 21.58 per cent under Wheat, 6.64 per cent area under Maize, 3.69 per cent area comes under the Pulses, 1.78 per centarea under Potato, 0.28 per cent devoted to Onion, 14.99 per cent area under Jute and Vegetables and others occupy 5.75 per cent of the area (Araria District: A Geographical Out Look). The net sown area of Araria was 186100 ha. with total cropped area of 266000 ha. Had average cropping intensity of 142.93 per cent in 2000-2001 (District Statistical Magazine 2003, p. 31.). Krishi Vigyan Kendra of the district play a vital role in enhancing Knowledge as well as changing other behavioural components of the farmer as it is engaged in providing technical know- how on advanced agricultural practices through different interventions of programmes of KVK.

METHODOLOGY

As most of the interventions were carried out in its five adopted villages (Ithera in Araria block, Majlispur in Palasi, Manikpur in Forbesganj, Barwanna in Raniganj and Chakai in Jokihat). Therefore, for the present investigation, respondents were selected randomly from these villages. For the selection of respondents, out of a total of 857 beneficiaries of various Programmes of KVK, Araria (during the year 2012-13), 100 respondents (20 respondents from each five adopted villages) were selected randomly. A questionnaire was prepared and after that data related were collected through personal interview. The data collected were processed, tabulated and analysed by using appropriate statistical tools like percentage. Here, a total of thirteen improved practices were selected as criteria to evaluate the respondents for extent of knowledge gained and adoption of paddy production technologies as a result of various interventions of KVK, Araria i.e. On Farm Trials (OFT), Frontline Demonstrations (FLD), Trainings, Field Days, Kisan Choupals, Diagnostic visits, Exposure Visits, Popular articles and lecture delivered as resource person.

FINDINGS AND DISCUSSION

Knowledge Gain:

Knowledge is one of the most important components of human behaviour influencing the covert as well as overt behaviour of an individual. Bloom (1951) defined knowledge as the behavioural test situation which emphasizes the remembering either through scale or recognition of ideas, material and phenomena. While English and English (1958) defined knowledge as a body

of understood information possessed by an individual or by a culture. Thus, the knowledge of the respondents in the present study refers to a test situation and his response to a set of questions by recalling method and it is presumed that the knowledge of the respondents depend upon the extent of exposure given to him through interventions like OFTs, FLDs, Trainings, Field Visits, Kisan Choupals, etc.

Table 1 shows the data about increased knowledge gain in paddy production technology due to various interventions by the KVK. It revealed that, before KVK intervention, the maximum of 44 percent knowledge level was found in Water management followed by 33 percent in Seed treatment,28 percent in Methods and time of transplanting, 27 percent in Methods of raising seedlings, 22 percent in Harvesting techniques, 21 percent in Field preparations, 19 percent in Integrated nutrient management, 14 percent in Weed management,13 percent in Post-harvest management, 10 percent in Selection of variety, 09percent in Seed rate and Spacing, 06 percent in Integrated pest management whereas least of 4 percent in Integrated disease management.

After intervention of KVK, it was found that maximum of 86 percent knowledge level was found in Water management followed Seed Treatment (83 percent), Harvesting techniques (79 percent), Methods and time of transplanting (74 percent), Methods of raising seedling (68 percent), Field preparation (62 percent), Seed rate and Spacing (58 percent), Integrated nutrient management (54 percent), Post-harvest management (51 percent), Weed management (41 percent), Integrated pest management (35 percent), Selection of variety (35 percent), and least was in Integrated disease management (32 percent).

Table-1. Gain in Knowledge w.r.t. Paddy Production Technologies due to interventions of KVK, Araria (N=100)

S. No.	Technology	Knowledge level (%)		
		Before KVK Intervention	After KVK Intervention	Gain in Knowledge
1.	Selection of variety	10	35	25
2.	Field preparation	21	62	41

3. Seed Treatment	33	83	50
4. Seed rate and Spacing	09	58	49
5. Methods of raising seedling	27	68	41
6. Methods and time of transplanting	28	74	56
7. Integrated nutrient management	19	54	35
8. Water management	44	86	42
9. Weed management	14	41	30
10. Integrated disease management	04	32	28
11. Integrated pest management	06	36	30
12. Harvesting techniques	22	79	57
13. Post-harvest management	13	51	38

Further, the perusal of table-1 reveals that maximum gain in knowledge was observed in Harvesting techniques (57 percent) which was followed by Methods and time of transplanting (56 percent), Seed Treatment (50 percent), Seed rate and Spacing (49 percent), Water management (42 percent), Field preparation & Methods of raising seedling (41 percent), Post-harvest management (38 percent), Integrated nutrient management (35 percent), Weed Management &Integrated pest management (30 percent), Integrated disease management (28 percent) and least was in Selection of variety (25 percent).

Extent of Adoption:

Table-2 reveals about increased Adoption level in paddy production technology due to various interventions by the KVK. It shows that, before KVK intervention, the maximum of 34 percent adoption was found in Water management followed by 26 percent in Methods and time of transplanting, 28 percent 21 percent in Methods of raising seedlings, 16 percent in Field preparations, 15 percent in Harvesting techniques & Integrated nutrient management, 11 percent Weed Management, 10 percent in Seed treatment & Post-harvest management, , 08 percent in Selection of variety, 07 percent in Seed rate and Spacing, 05 percent in Integrated pest management whereas least of 03 percent in Integrated disease management.

After intervention of KVK, it was found that maximum of 69 percent adoption was found in Water management followed by Harvesting techniques (67 percent), Methods and time of transplanting (59 percent), Seed Treatment (52 percent), Methods of raising seedling (51 percent), Field preparation (47 percent), Integrated nutrient management (45 percent), Post-harvest management (41 percent), Weed management (36 percent), Seed rate and Spacing (36 percent), Integrated pest management (31 percent), Integrated disease management (27 percent). and least was in Selection of variety (24 percent).

Table-2. Gain in Adoption w.r.t Paddy Production Technologies due to interventions of KVK, Araria (N=100)

S. No.	Technology	Adoption level (%)		
		Before KVK Intervention	After KVK Intervention	Change in Adoption
1.	Selection of variety	08	24	16
2.	Field preparation	16	47	31
3.	Seed Treatment	10	52	42
4.	Seed rate and Spacing	07	35	28
5.	Methods of raising seedling	21	51	30
6.	Methods and time of transplanting	26	59	33
7.	Integrated nutrient management	15	45	25
8.	Water management	34	69	35
9.	Weed management	11	36	25
10.	Integrated disease management	03	27	24
11.	Integrated pest management	05	31	26
12.	Harvesting techniques	15	67	52
13.	Post-harvest management	10	41	31

Further, the table-2 also reveals that maximum adoption was realized in Harvesting techniques (52 percent) which was followed by), Seed Treatment (42 percent), Water management (35 percent), Methods and time of transplanting (33 percent), Field preparation & Post-harvest management (31 percent), Methods of raising seedling (30 percent), Seed rate and Spacing (28 percent), Integrated pest management (26 percent), Integrated nutrient management & Weed Management (25 percent), Integrated disease management (22 percent) and least was in Selection of variety (16 percent).

Knowledge acquisition Vs Extent of Adoption:

There are many factors contributing to gain in knowledge as well as acquisition of skill which may be personal ability of the respondents as well as the extension personnel, prevailing teaching/ learning situation, physical facilities and easiness of the technology to be transferred.

Table-3 shows the percentage of respondents acquired knowledge and adoption after intervention of KVK, Araria on different technologies of paddy selected under present study. A perusal of the table-3 indicates that after intervention of KVK, maximum percentage of gain in knowledge was 86% but technology adoption was 69% in Water management followed by 83% and 52% in seed treatment ;79% &27% in Harvesting techniques; 74% & 59% in Methods and time of transplanting; 68% & 51% in Methods of raising seedling; 62% & 47% in Field preparation; 58% & 35% in Field preparation; 54% & 45% in Integrated nutrient management;

Table-3. Acquisition of Knowledge and level of Adoption in relation to paddy production technology. (N=100)

S. No.	Technology	Knowledge level (%)	Adoption level (%)
1.	Selection of variety	35	24
2.	Field preparation	62	47
3.	Seed Treatment	83	52
4.	Seed rate and Spacing	58	35

5. Methods of raising seedling	68	51
6. Methods and time of transplanting	74	59
7. Integrated nutrient management	54	45
8. Water management	86	69
9. Weed management	41	36
10. Integrated disease management	32	27
11. Integrated pest management	36	31
12. Harvesting techniques	79	27
13. Post-harvest management	51	31

51% & 31% in Post-harvest management; 41% & 36 in Weed management; 36% & 31% in Integrated pest management; 53% & 24% in Selection of variety and the least was 32% & 27% in Integrated disease management.

CONCLUSION

It could be concluded from the above facts that intervention of KVK certainly enhanced the level of knowledge and level of adoption, but, still there exist a big gap between level of knowledge acquired and the level of adoption of the technology which is needed to be narrowed by applying appropriate interventions by the KVK.

REFERENCES

1. Singh, N.P. and Gill, S.S. (1980). Training needs of farmers in selected agril. Practices and skills in context of KVK programme. Proceeding of the third National Workshop in KVK, pp. 87-93.
2. Tyson, S. and York, A. (1989). Personnel Management. Made Simple, Oxford, England.
3. Ahmad, S.K.Z. and Philip, H. (1999). Effectiveness of training on farm women of Andaman & Nicobar Island. Madras Agricultural Journal. **86**(1-3): 154-157.
4. Kumari, P.; Singh, R.; Harichand and Sil, A. (2000). Development of apicultural technology transfer package. Paper presented at group meeting of All India Coordinated Project on Honey Bee Research and Training at Naini, Solan, July, 10-11.

