IMPACT OF KVK TRAINING PROGRAMME ON KNOWLEDGE AND ADOPTION OF PADDY PRODUCTION TECHNOLOGY IN CUDDALORE DISTRICT OF TAMILNADU, INDIA

Abstract

KVK is organizing various types of training programme as one of the important mandatory activities for the benefit of the stakeholders. To know the impact of the KVK Training programme among KVK Vridhachalam trained paddy growers, the study was conducted in the Cuddalore District of Tamil Nadu. 150 Paddy growers were selected as respondents from 15 Paddy growing villages by employing simple random sampling techniques. It was found that 58.00 per cent of paddy growers had a high level of knowledge as a result of the KVK Training programme. Similarly, it was observed that the level of adoption among farmers also increased, with the number of high-level adopters increasing from 20.00 per cent to 63.33 per cent. In contrast, the number of low-level adopters decreased from 33.33 percent to 13 percent. It is concluded that paddy growers should utilize the KVK training programme periodically to update their knowledge and skill for better adoption of paddy technologies for improving productivity and income.

Keywords: Knowledge, Adoption, KVK training, Paddy

Introduction

Agricultural innovations and diffusion of new technologies are key drivers to attain food security in the country besides providing farmers a competitive edge over traditional farming, thus facilitating better standards of living. Krishi Vigyan Kendra (KVK) is one of the most vibrant projects initiated by the Indian Council of Agricultural Research (ICAR) for the transfer of technology. The project is intended to create a dedicated and energetic human resource for the agricultural development of the country (Chauhan, 2016) [2]. KVKs in India are playing a significant role in improving the capacity of the farmers and other stakeholders (Ajrawat & Kumar,

2012) [1]. Organizing different types of training for different stakeholders is one of the mandatory activities in KVK, besides, implementing on-farm testing and front-line demonstrations. In training, participants are provided with well-organized opportunities to acquire the required skills and understanding (Lynton & Pareek, 1990) [6]. KVK Cuddalore has organized various types of capacity building programme for the Paddy growers of the Cuddalore district. So far, no study has been conducted to know the impact of the training programme on paddy growers since the inception of KVK. Therefore, a study on the Impact of the KVK Training was undertaken with the objective of studying knowledge and adoption of paddy technologies by the KVK trained paddy growers.

Methodology

KVK Cuddalore is one of the oldest KVK in Tamil Nadu. KVK organize various type of capacity building programme on paddy cultivation. Since paddy is being cultivated in more than 1.30 Lakh ha in Cuddalore district (Statistical Handbook of TamilNadu, 2022) [10] . Hence, Cuddalore district was selected for this study. Srimushnam, Bhuvanagiri and Vridhachalam blocks were selected for the study considering the area under paddy cultivation. Five revenue villages from each block were identified for selection of respondents. By employing simple random sampling techniques, 10 paddy growers as respondent from each identified village were selected. Accordingly, 150 respondents were identified for the study programme which covers small, medium, big and women paddy growers. This study was conducted in the Tamil Nadu district of Cuddalore. A pretested semi-structured interview schedule was used to collect information from each respondent.

As part of the knowledge assessment process, participants were asked several questions regarding the recommended Paddy production technologies in order to determine their knowledge level regarding Paddy cultivation practices. Each question was scored, and the sum of the scores obtained by an individual was used to determine whether that individual knew about recommended Paddy cultivation practices. Thus, the mean and standard deviation of respondents were classified into categories of low, medium, and high proficiency.

Based on the adoption scale developed by (Fulzele, 1986) [4] with appropriate modifications, adoption was measured. Scoring for each adoption was determined by

considering the accuracy of the responses. Scores were given for full adoptions (3), partial adoptions (2), and non-adoptions (1), with the total adoption score calculated accordingly. As a result of the total score obtained by all respondents for all recommended practices, adoption behaviour was calculated accordingly. The impact was assessed based on the number of participants adopting KVK-recommended production technology before and after the training programme

Results and Discussion

According to (Gupta & Verma, 2013) [5] Providing and improving trainees' knowledge of improved farm technologies is one of Krishi Vigyan Kendra's main mandates, since knowledge is a cognitive component of the mind and plays a role both covertly and overtly. So, the impact of the KVK training programme on the knowledge level of the respondents about the paddy production technologies presented in Table 1 and Fig 1.

From the pertaining Table 1 and Fig 1, it could be seen that (58.00 %) of more than half of the respondents were found to possess high knowledge, followed by (21.33 %) with medium and (20.67 %) with a low level of knowledge of paddy production technologies. Thus, results show most of the farmers have high knowledge of paddy production technologies. The probable reason maybe they have high schooling education, mass exposure, and participation in training conducted by KVK. The result was in line with the findings of (Dubey, Srivastva, Singh, & Sharma, 2016) [4] who reported most of the rice growers have a high level of knowledge.

(Rogers & Williams, 1983) [8] have defined adoption as a decision to make full use of an innovation as the best course of action available In order to assess the impact of a training program on the adoption of paddy production technologies, we examined the number of participants who adopted the recommended technology following the training. As a result of this, a study was conducted to analyse and present the impact of KVK training on the adoption of recommended paddy production technologies before and after training.

Regarding Adoption level, it is evident from Table 2. Fig.2 that after training the majority of farmers fully adopted (96 %) irrigation management, followed by (83.3 %) seed treatment, (80 %) nutrient management, (78.6 %) recommended seed

varieties, (78 %) main field preparation and transplanting, (75.3 %) weed management, (74.7 %) plant protection techniques, (74.6 5) nursery preparation and (63.3 %) time of harvest. In the case of before training (35.3 %) the majority of farmers fully adopted main field preparation and transplanting, followed by (26.7 %) time of harvest, (24.7 %) nursey preparation, (22.6 %) irrigation management, (21.3 %) plant protection techniques, (20.00 %) nutrient management, (19.3 %) weed management, (14.6 %) recommended seed varieties and (13.3 %) seed treatment. Thus, the results indicate a change in the extent of adoption is positive and the rate of adoption has increased after training. The results were in line with the findings of (Patel & Patil, 2020) [7].

Table 3 and Fig 3. Reveals that after training most of the respondents (63.33 %) has a high level of adoption, followed by (23.33 %) with a medium level of adoption, case before training most of the respondents has (46.67 %) has medium adoption, followed below (33.33 %) and (20.00 %) high level of adoption. The results were in line with the finding of (Singhal & Vatta, 2017) [9].

Table 1. Distribution of the respondents according to their knowledge level in relation to recommended paddy production technology

S. No	**Category**	**Number**	**Per cent**
1	Low	31	20.67
2	Medium	32	21.33
3	High	87	58
	Total	**150**	**100.00**

Fig 1: Distribution of the respondents according to their knowledge level in relation to recommended paddy production technology

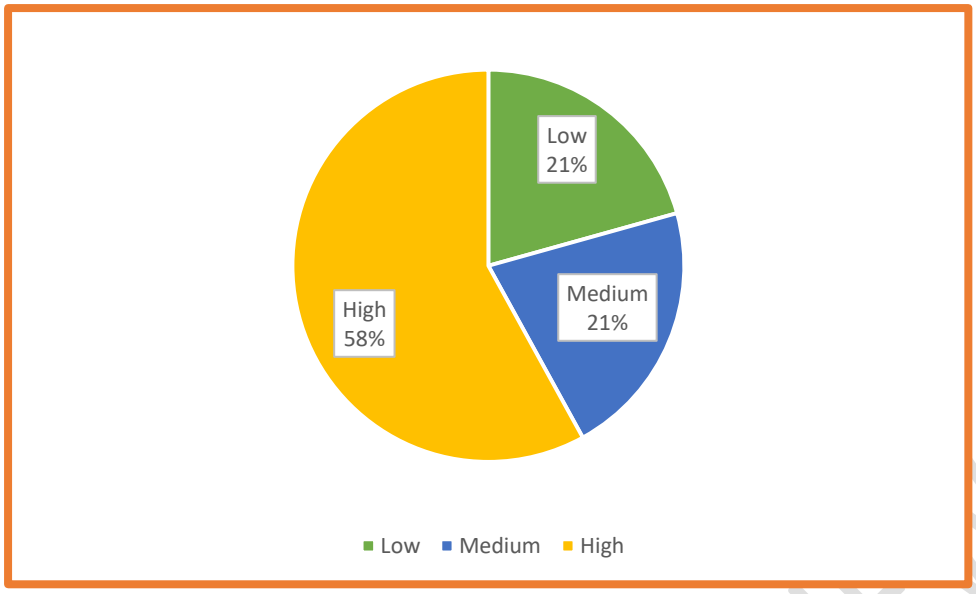


Table 2. Distribution of Respondents of Paddy production technology according to their extend of adoption

S. No.	Particulars	Before Training						After Training					
		Fully adopted		Partially adopted		Not adopted		Fully adopted		Partially adopted		Not adopted	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	Nursery preparation	37	24.7	64	42.7	49	32.6	112	74.6	27	18	11	7.4
2.	Recommended seed varieties	22	14.6	48	32	80	53.4	118	78.6	29	19.4	3	2
3.	Seed treatment	20	13.3	40	26.7	90	60	125	83.3	20	13.3	5	3.4
4.	Main field preparation and transplantation	53	35.3	47	31.3	50	33.4	117	78	30	20	3	2
5.	Nutrient management	30	20	44	29.3	76	50.7	120	80	19	12.6	11	7.4

6.	Irrigation management	34	22.6	68	45.4	48	32	144	96	6	4	0	0
7.	Weed management	29	19.3	40	26.7	81	54	113	75.3	24	16	13	8.7
8.	Plant protection techniques	32	21.3	60	40	58	38.7	112	74.7	27	18	11	7.3
9.	Time of harvest	40	26.7	50	33.3	60	40	95	63.3	40	26.7	15	10

Fig 2. Distribution of Respondents of Paddy production technology according to their extend of adoption before and after training

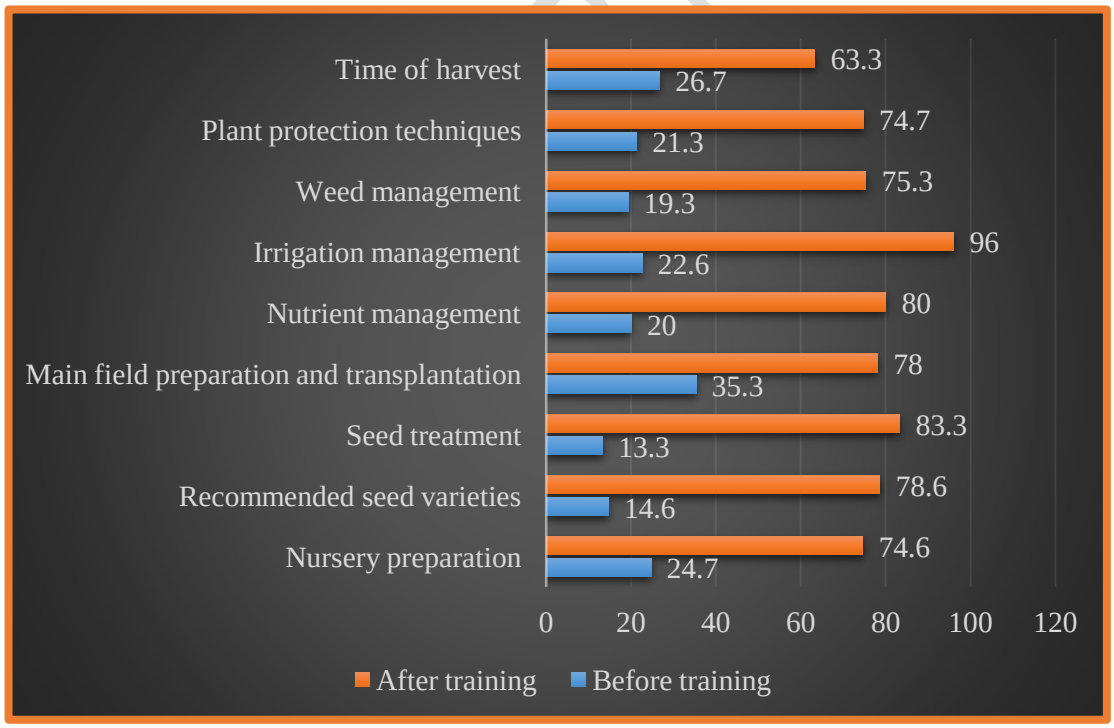
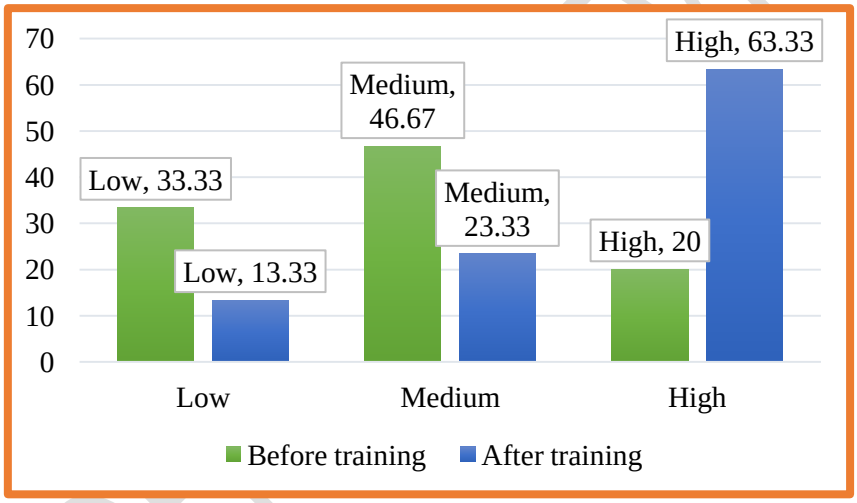


Table 3. Distribution of respondents according to paddy production technologies to the extent of adoption before and after training

S.No	Category	Before training		After training	
		Number	Per cent	Number	Per cent
1	Low	50	33.33	20	13.33
2	Medium	70	46.67	35	23.33
3	High	30	20.00	95	63.33
	Total	**150**	**100.00**	**150**	**100.00**

Fig 3: Distribution of respondents according to paddy production technologies to the extent of adoption before and after training



Conclusion

In this research, it has been revealed that the training on rice production technology has been an effective method for developing knowledge among farmers and transferring it to their fields. As a result of the training, farmers have been able to accomplish their tasks much more quickly and easily, and they are highly motivated and satisfied with the possession of new agricultural technology. It was observed that the farmers had a positive perception of KVK training center as there was a positive change in knowledge and extent of adoption. As a result, they adopted paddy production technology more rapidly after the training. Therefore, it may be concluded that farmers perceived the training centre positively since there was a change in knowledge and adoption level in paddy production technologies.

References

1. Ajrawat, B., & Kumar, A. (2012). Impact of KVK training programme on socio-economic status and knowledge of trainees in Kathua District. *Journal of Krishi Vigyan, 1*(1), 31-34.
2. Chauhan, N. M. J. (2016). Aptitude of the programme coordinators of Krishi Vigyan Kendras of India. *Indian Research Journal of Extension Education, 11*(3), 19-24.
3. Dubey, A., Srivastva, J., Singh, R., & Sharma, V. (2016). Impact of KVK Training Programme on Socio–economic Status and Knowledge of Trainees in Allahabad District. *Indian Research Journal of Extension Education8*(3), 60-61.
4. Fulzele, R. J. (1986). *A multidimensional analysis of training program of KVK.* Unpublished doctoral thesis, NDRI, Karnal
5. Gupta, S., & Verma, S. (2013). Impact of KVK on knowledge level of farm women. *J Rural Agric Res13*(2), 87-89.
6. Lynton, R. P., & Pareek, U. (1990). Training for development, West Hartford. In: Kumarian Press.
7. Patel, D. K., & Patil, S. (2020). Impact of KVK training programme on knowledge and adoption of rice crop production technology in Koshi Region of Bihar.
8. Rogers, E. M., & Williams, D. (1983). Diffusion of Innovations. *(Glencoe, IL: The Free Press, 1962)*.
9. Singhal, S., & Vatta, L. (2017). Impact of Krishi Vigyan Kendra on adoption of improved agricultural production practices. *International Journal of Science, Environment, 6*(2), 993-1000.
10. *Statistical Handbook of TamilNadu*. (2022). Department of Economics and Statistics Chennai-6