

Impact of Farmers Training Centre on Knowledge, Adoption And Diffusion of Improved Farm Practices

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INTRODUCTION

Training has to be recognized as a major sector for human resource development. For regular training of farmers, both institutional and in-situ, we are far behind in institutional build-up. Subject-matter orientation and location specificity in training is weak, especially in farmers training. Proper mix of latest technologies and effective methods of training are imperative. Training is directly linked with the production outcomes and hence, its effectiveness must be measured on the ultimate increase in productivity and production besides cognitive development of trainees.

The main aim of farmers training is to develop the skills needed to the farmers for undertaking the improved agricultural practices and also helping them to develop the confidence in them for the adoption of new farm technology. The success of this training programme depends on the ability to involve the farmers of different categories in providing them the desired knowledge and bring change in the rate of adoption of improved farm and home practices in an intensive manner. The present study was undertaken with the following specific objectives :

1. To study the knowledge of the selected farm practices gained by the farmers through training.
2. To measure the extent of adoption of the selected farm practices by the trained farmers.
3. To know the amount of knowledge diffused by the trainees in the villages.

METHODOLOGY

Out of 13 blocks of Jabalpur district (M.P.), Panagar block has been purposively selected, because most of the farmers of this block got training from farmers Training Centre, Jabalpur. During the two years, the total trained male farmers at FTC, Jabalpur were 47 of 18 villages of the block. Out of these total trained farmers approximately 50 per cent (25) farmers were selected on random basis covering an area of 12 villages of this block.

The independent variables were education, age, family composition, social participation and size of land holdings. The dependent ones were (a) Knowledge of farmers about improved agricultural practices (b) adoption of farm practices

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Table 1 : Distribution of farmers according to extent of knowledge, adoption and diffusion of improved agricultural practices.

Improved Agril. Practices	Knowledge			X ² Value	Adoption			X ² Value	Diffusion			X ² Value
	High F(%)	Low F(%)	Total		High F(%)	Low F(%)	Total		High F(%)	Low F(%)	Total	
<i>A. Improved seed</i>												
i. Before Training	10 (40.0)	15 (60.0)	25	8.33 ^{xx}	6 (24.0)	19 (76.0)	25	11.53 ^{xx}	5 (20.0)	20 (80.0)	25	4.36 ^{xx}
ii. After Training	20 (80.0)	5 (20.0)	25		18 (72.0)	7 (28.0)	25		12 (48.0)	13 (52.0)	25	
<i>B. Chemical fertilizer</i>												
i. Before Training	7 (28.0)	18 (72.0)	25	14.93 ^{xx}	2 (8.0)	23 (92.0)	25	48.00 ^{xx}	4 (16.0)	21 (84.0)	25	7.21 ^{xx}
ii. After Training	21 (84.0)	4 (16.0)	25		18 (72.0)	7 (28.0)	25		13 (52.0)	12 (48.0)	25	
<i>C. Improved seed + Chemical fertilizer</i>												
i. Before Training	11 (44.0)	14 (56.0)	25	4.02 ^{xx}	8 (32.0)	17 (68.0)	25	8.01 ^{xx}	2 (8.0)	23 (92.0)	25	5.71 ^{xx}
ii. After Training	18 (72.0)	7 (28.0)	25		18 (72.0)	7 (28.0)	25		9 (36.0)	16 (64.0)	25	

F = Frequency, % = Frequency percentage xx = Highly significant

and (c) diffusion of knowledge of farm practices. The selected farm practices were improved seed and fertilizer practices. The interview schedules were prepared. The data were gathered through personal interview with the help of schedule. Analysis of data was resorted to frequency counts and averages. The Chi-Square test was used to find out the statistical significance of the training in relation to change in knowledge, adoption and diffusion of farm practices by the farmers.

RESULTS AND DISCUSSION

The training of the farmers is a very effective approach to teach them for making use of the modern technology and to improve their knowledge in their field of profession. Through training, the farmers can be made to understand the usefulness of modern farm practices.

1. Improved Agricultural Practices

A. Improved Seed :

The data presented in Table 1 indicate that, out of 25 farmers, before training, 40 per cent had high knowledge and 60 per cent were having low knowledge about the high yielding varieties (improved seed), while after training 80 per cent were of high knowledge and only 20 per cent were having low knowledge. In case of adoption, the data indicate that, out of the total farmers, before training 24 per cent had high adoption and 76 per cent were having low adoption of improved seed, while after training 72 per cent were of

high adoption and 28 per cent were in low adoption. In case of diffusion of improved seed, out of total farmers before training, 20 per cent farmers provided high diffusion of improved seed whereas after training 48 per cent came under high diffusion category. The significant values of X^2 indicate that there was a significant impact of training on extent of knowledge, adoption and diffusion of the practices of improved seed among the farmers.

B. Chemical Fertilizer :

In case of chemical fertilizer, the data indicate that before training out of the total farmers, 28 per cent has high knowledge and 72 per cent were having low knowledge of chemical fertilizers. After training, 84 per cent farmers were of high knowledge. In adoption of the practices of fertilizers, only 8 per cent farmers were of high adoption and 92 per cent had low adoption before the training, whereas after training 72 per cent had high adoption and only 28 per cent farmers had low adoption of the practices of fertilizers. In case of diffusion of fertilizers, before training, only 16 per cent were under high diffusion group but after training 52 per cent farmers came under high diffusion group. The value of X^2 was found to be significant in all the three categories i.e. knowledge, adoption and diffusion of the practices of chemical fertilizers.

C. Improved Seed and Fertilizers :

The data presented in Table 1 indicate that 44 per cent farmers had high

knowledge before training about the improved agricultural practices, while after training 72 per cent were of high knowledge. In adoption, before training only 32 per cent farmers were in high adoption group of improved agricultural practices which has increased to 72 per cent. In case of diffusion, before training only 8 per cent provided high diffusion, of improved agricultural practices, while after training as high as 36 per cent came under high diffusion category. When tested for statistical significance for knowledge, adoption and diffusion, the value of X^2 was found to be significant. This meant a significant impact of training on the extent of knowledge, adoption and diffusion of improved agricultural practices among male farmers.

2. Personal attributes of farmers

Education

The data presented in Table 2 indicate that, out of the total male respondents, only 4 per cent were illiterates, 68 and 28 per cent were belonging to the groups of primary and middle standards, respectively. Among farmers having high knowledge 35.3 per cent were of primary and 71.4 per cent were of middle and above educational levels before training. After training 76.5 per cent were of primary and 71.4 per cent were belong to middle and above educational standards. This clearly indicates an increase in knowledge of improved agricultural practices after training among the group belong to Primary education.

In case of adoption of improved agricultural practices before training, 29.4 per cent respondents were of primary and 42.8 per cent were up to the level of middle and above, who were belonging to the category of high adoption which also indicates an increase to 70.6 per cent and 85.7 per cent respectively after the impart of training. This clearly shows an increase in adoption of improved agricultural practices by both the groups of farmers after training but the increase in case of farmers having education up to the level of primary was higher than those of farmers belonging to the group of middle standard.

Age

Out of the total respondents, 44 per cent were young, 24 and 32 per cent were middle and old age group, respectively. Before training, farmers having high knowledge who were belonging to young, middle and old age groups were 45.5, 66.6 and 25 per cent respectively. After completing the training, farmers of the young, middle and old age groups were 72.7, 100 and 50 per cent, respectively. This indicates an increase in knowledge of improved agricultural practices in all the three groups of farmers after getting the training at the centre. The increase was maximum in case of farmers belonging to middle age group (26 to 33 years).

As regards adoption of improved agricultural practices before training the farmers belonging to the young, middle

Table 2 : Impact of training on knowledge and adoption of improved agricultural practices and personal attributes of farmers.

Personal Attributes	Knowledge				Total F (%)	Adoption				Total F (%)
	High		Low			High		Low		
	Before F (%)	After F (%)	Before F (%)	After F (%)		Before F (%)	After F (%)	Before F (%)	After F (%)	
<i>Education</i>										
1. Illiterate	-	-	1 (100%)	1 (100%)	1 (4.00)	-	-	1 (100.00)	1 (100.00)	1 (4.00)
2. Primary	6 (35.31)	13 (76.5)	11 (64.7)	4 (23.5)	17 (68.0)	5 (29.4)	12 (70.6)	12 (70.6)	5 (29.4)	17 (68.0)
3. Middle & above	5 (71.4)	5 (71.4)	2 (28.6)	2 (28.6)	7 (28.0)	3 (42.8)	6 (85.7)	4 (57.1)	1 (14.3)	7 (28.0)
<i>Age</i>										
1. Young (18 to 25 Year)	5 (45.5)	8 (72.7)	6 (54.5)	3 (27.3)	11 (44.0)	4 (36.3)	9 (81.8)	7 (63.6)	2 (18.2)	11 (44.0)
2. Middle (26 to 33 Yr.)	4 (66.6)	6 (100.0)	2 (33.3)	-	6 (24.0)	3 (50.0)	5 (83.3)	3 (50.0)	1 (16.6)	6 (24.0)
3. Old (34 Yr. & above)	2 (25.0)	4 (50.0)	6 (75.0)	4 (50.0)	8 (32.0)	1 (12.5)	4 (50.0)	7 (87.5)	4 (50.0)	8 (32.0)
<i>Family Type</i>										
1. Individual	-	2 (100.00)	2 (100.00)	-	2 (8.0)	1 (50.0)	1 (50.0)	1 (50.0)	1 (50.0)	2 (8.0)

(Contn..)

Personal Attributes	Knowledge				Total F (%)	Adoption				Total F (%)
	High		Low			High		Low		
	Before F (%)	After F (%)	Before F (%)	After F (%)		Before F (%)	After F (%)	Before F (%)	After F (%)	
2.. Joint	11 (47.8)	16 (69.5)	12 (52.5)	7 (30.4)	23 (92.0)	7 (30.4)	17 (73.9)	16 (69.5)	6 (26.1)	23 (92.0)
<i>Social Participation :</i>										
1. No. Participation	1 (25.0)	3 (75.0)	3 (75.0)	1 (25.0)	4 (16.0)	2 (50.0)	3 (75.0)	2 (50.0)	1 (25.0)	4 (16.0)
2. Participation	10 (47.6)	15 (71.4)	11 (52.4)	6 (28.6)	21 (84.0)	6 (28.6)	15 (71.4)	15 (71.4)	6 (28.6)	21 (84.0)
<i>Land Holdings :</i>										
1. Small (up to 3 acres)	3 (33.3)	6 (66.6)	6 (66.6)	3 (33.3)	9 (36.0)	3 (33.3)	5 (55.5)	6 (66.6)	4 (44.4)	9 (36.0)
2. Medium (4 to 6 acres)	1 (20.0)	3 (60.0)	4 (80.0)	2 (40.0)	5 (20.0)	1 (20.0)	4 (80.0)	4 (80.0)	1 (20.0)	5 (20.0)
3. Large (above 6 acres)	7 (63.6)	9 (81.8)	4 (36.3)	2 (18.2)	11 (44.0)	4 (36.3)	9 (81.8)	7 (63.6)	2 (18.2)	11 (44.0)
Total	11	18	14	7	25	8	18	17	7	25

and old age groups were 36.3, 50 and 12.5 per cent respectively, belonging to high adoption category while after training the farmers of young, middle and old age groups were 81.8, 83.3 and 50 per cent. shows an increase in adoption of improved agricultural practices by the farmers of all the three groups. The maximum increase in adoption was among farmers of young age group.

Type of Family

The data presented in Table 2 indicate that out of the total respondents, only 8 per cent were of individual family and 92 per cent were belonging to joint family.

Among farmers having high knowledge, 47.8 per cent were of joint family composition before training. After training cent percent were of individual family type and 69.5 per cent were belonging to joint family type. This clearly indicates an increase in knowledge of improved agricultural practices after training among both the types of farm families.

In case of adoption of improved agricultural practices, before training, 50 per cent respondents were of individual family and 30.4 per cent were of joint family type belonging to the category of high adoption. It has increased to 50 and 73.9 per cent, respectively, after the impart of training.

Social Participation

The data show that out of the total farmers, only 16 per cent were not

participating and 84 per cent were participating in the social activities.

Among farmers belonging to high knowledge, 25 per cent were non-participants and 47.6 per cent were belonging to participant group before training. After training 75 per cent were nonparticipant and 71.4 per cent were in participation group. This clearly indicates an increase in knowledge of improved agricultural practices after the training among both the groups of farmers.

In case of adoption of improved agricultural practices, before training 50 per cent were belonging to non-participation and 28.6 per cent to participation group, who were belonging to the high adoption category. An increase was noted to 75 and 71.4 per cent respectively, after the impart of training.

Land Holdings

30, 20 and 44 per cent farmers were having small, medium and large size of land holdings.

Among farmers having high knowledge, 33.3 per cent were of small, 20 and 63.6 per cent were of medium and large size of land holdings before training. After training 66.6, 60 and 81.8 per cent farmers were of small, medium and large size of land holding, respectively. This clearly indicates an increase in the knowledge of improved agricultural practices after training in all the three groups. The increase of knowledge among farmers of medium size

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of land holdings was higher than those of farmers belonging to the groups of small and large size of land holdings.

As regard to adoption of improved agricultural practices, before training 33.3 per cent farmers were small, 20 and 36.6 per cent were medium and large size of land holdings. There was increase in extent of adoption of improved agricultural practices by all the three groups of farmers. The adoption of improved agricultural practices by the farmers of medium size of land holdings was higher than those of farmers belonging to the groups of small and large size of land holdings.

Suggestions of Trainees

The data presented in Table 3 revealed that 52 per cent respondents were in favour of increasing the number of trainers imparting training by only the subject matter specialists, increasing the amount of stipend and providing the lodging facility at the training centre. They suggested that residential facilities should be properly managed by the centre, practical knowledge should be imparted through conduct of demonstrations, training should be organized when farmers are less busy in their farming, suitable library facility should also be available, training should be on the main subjects due to limitation of time.

CONCLUSION

1. There was significant impact of training on the extent of knowledge,

adoption and diffusion of improved agril. practices among the farmers.

2. It was found that farmers who were having primary education were highly responsive to the increase in knowledge as compared to illiterate, middle and higher class of educated farmers, while response in adoption of practices were found high in the same group of farmers (primary educated)
3. The middle age group farmers were highly responsive to training towards increase in level of knowledge but the response in adoption was higher in younger age group of the farmers.
4. The farmers who belonged to the type of individual family were highly responsive towards the level of knowledge about improved agricultural practices. While the farmers who belonged to the type of joint family were highly responsive to adoption of improved agricultural practices after training.
5. Social participation is also one of the factor influencing knowledge and adoption of improved agricultural practices. The farmers belonging to medium size of land holdings were more responsive towards knowledge and adoption of improved agricultural practices as compared to those of small and large size of land holdings.

Table 3 : Suggestions of trainees for bringing the effectiveness in the training programmes (N=25)

Sr. No.	Suggestions	Yes		No	
		F	%	F	%
1.	Number of Trainees should be increased	13	52.0	12	48.0
2.	Training Should be given only by SMSs	25	100.0	-	-
3.	The amount of stipend should be increased	25	100.0	-	-
4.	Lodging facilities should be provided by the training centre	25	100.0	-	-
5.	Residential facilities should be properly managed by the centre.	25	100.0	-	-
6.	Practical knowledge should be increased through demonstrations	25	100.0	-	-
7.	Training should be organised when farmers are not busy in their farming	25	100.0	-	-
8.	Suitable library facility should be available	25	100.0	-	-
9.	Training should be on main subjects due to limited time available	25	100.0	-	-
10.	Sufficient room and furniture should be available at the centre	25	100.0	-	-
11.	Proper transport facilities should be available	25	100.0	-	-
12.	First Aid facility should be available at the centre	25	100.0	-	-