

IMPACT OF INTEGRATION OF EXTENSION METHODS ON ADOPTION OF MUSHROOM CULTIVATION

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ABSTRACT

The study was conducted with objective to assess the impact of integration of various extension methods on adoption of mushroom cultivation amongst farmers. Before and after research design was followed and a total number of seven combinations of extension methods were tested. The study revealed that that on the basis of symbolic adoption score, mushroom pathashala on AIR was most effective with rank I, followed by mushroom pathshala + training with rank II, farm visit + training with rank III, farm visit + training + on-farm demonstration at IVth rank and farm visit + on-farm demonstration, and training+ on farm demonstration jointly at rank V.

Key words- Adoption, Mushroom cultivation, Extension methods, Mushroom pathashala

INTRODUCTION :

Adoption of technologies depends upon various factors like characteristics of technology, social system, channels of communication and time. The use of right channel for transfer of technology has major impact on adoption process. Infact, communication channels are the means which connect a knowledgeable individual with other who does not possess the same. It has close relationship with adoption behaviour of farmers. Rogers (1983) described role of communication channels in diffusion and adoption of an innovation. During sixties, research on effectiveness of extension methods was given emphasis because of availability of several new technologies in agriculture.

Mushroom cultivation involves some highly technical skills having many complex stages during cropping cycle and it is entirely new vegetable crop to majority of the farmers. Even innovative farmers did not know much about mushroom and its cultivation. The role of channels of transfer of technology becomes more important when technology is complex and non-traditional. In such type of farming community, propagation of mushroom cultivation with the help of usual transfer of technology methods will not be that effective. Indeed, it requires strategic and systematic efforts on the part of disseminating agency. In view of the above conditions, study was undertaken with the objective to assess the impact of integrated use of transfer of technology methods on adoption of mushroom cultivation.

METHODOLOGY :

For this study, Solan district of Himachal Pradesh was selected purposely because of location of investigating Institute in this district. However, other

districts of H.P. were also taken into consideration using All India Radio as medium because of its wide coverage.

Keeping in view the available manpower and resources, six villages were selected randomly around Solan district for conducting the study. Besides it, few villages from neighbouring district-Sirmour were also selected for the purpose of farm visit in collaboration of N.G.O. and collectively 20 farmers were chosen randomly. In order to select farmers for the study, list of farmers in each village was prepared and 40-50% farmers with medium socio-economic status were selected purposely from each village in consultation with panchayat members and Pradhans. In their manner 10-12 farmers were finally selected from each village. In case of mushroom pathashala on AIR, 33 listeners who responded properly were selected from various districts of H.P.

To collect data from selected farmers, an interview schedule on selected variables was developed. Data were collected in two phases i.e. pre-exposure and post exposure. First phase data were collected before starting the experiment. Thereafter, these selected farmers were exposed to mushroom cultivation technology through seven combinations of extension methods. After that IInd phase data were collected from these exposed farmers. The collected data were compiled, tabulated and analysed.

RESULTS AND DISCUSSION :

In order to assess the impact of integration of extension methods on adoption behaviour of farmers, the present study was targeted towards two aspects such as symbolic adoption of mushroom cultivation technology under various modes of transfer of technology, and symbolic adoption pattern with respect to knowledge gain levels under various methods of transfer of technology.

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The results are presented in Table 1 & 2.

(i) Symbolic adoption of mushroom cultivation under selected methods of transfer of technology—Mushroom cultivation technology was transferred to the selected farmers using eight transfer of technology methods singly as well as in combinations. The data obtained were expressed in terms of percentage and ranks. The results are given in Table-1.

The data given in table-1 reveal that highest symbolic adoption was achieved when mushroom cultivation technology was broadcasted through “Radio Mushroom Pathashala” weekly programme. Through this programme, 75.75% farmers were ready to adopt mushroom cultivation.

Table 1. Symbolic adoption of mushroom cultivation under selected combinations of TOT methods

Sr. No.	Combination of TOT methods	Total No. of frequency	Symbolic Adoption		Rank
			respon- dents	(%)	
1.	Farm visit to mushroom unit supported with literature	20	00.00	00.00	0
2.	Farm visit to mushroom unit with literature + training	11	07	63.63	III
3.	Farm visit to mushroom unit with literature+on-farm demonstration	10	05	50.00	V
4.	Farm visit to mushroom unit with literature+training+on-farm demonstration	10	06	60.00	IV
5.	Training + on-farm demonstration	10	05	50.00	V
6.	On-farm demonstration	10	01	10.00	VII
7.	Mushroom pathashala on A.I.R.	33	25	75.75	I
8.	Mushroom pathashala followed by training	13	09	69.23	II

Under the combination- mushroom pathashala on AIR followed by training, 69.23% farmers were mentally ready to take up mushroom cultivation.

Mushroom Cultivation technology transferred through farm visit to mushroom units supported with literature followed by training was symbolically adopted by 63.63% farmers. When this combination was fortified with one more TOT method - on-farm demonstration, marginal reduction in symbolic adoption was noticed. The same symbolic adoption behaviour was also

observed in the mushroom pathashala on AIR and its integration with training.

An interesting finding came out from the foregoing discussion that addition of one more TOT tool in a combination decreases symbolic adoption percentage marginally. The possible reason may be disclosure of complexity in mushroom cultivation process with the further exposure through adoption of TOT tools.

The combinations - farm visit followed by on-farm demonstration, and training followed by on-farm demonstration were at par. In both the combinations, 50% symbolic adoption was noticed. Farm visit and on-farm demonstration in isolation were ineffective as far as symbolic adoption is concerned. However, Gowda and Yellapa (1999) reported farm visit (study tours) as very effective in motivating the participating and non-participating farmers/ farm women to take up mango plantation. Bhaskaram and Mahajan (1968) reported the method demonstration as most effective extension method due to highest symbolic adoption of seed treatment of Agrosan in comparison to lecture and flash card with lecture. Ineffectiveness of on -farm demonstration in case of mushroom may be due to complexity of technology .

Table-1 further reveals that on the basis of symbolic adoption score, mushroom pathashala on AIR was most effective with rank I followed by mushroom pathashala + training with rank II, farm visit + training with rank III, farm visit + training + on-farm demonstration at IVth rank and farm visit + on-farm demonstration, and training+ on farm demonstration jointly at rank V.

(i) Symbolic adoption pattern under selected combinations of TOT methods with respect to knowledge gain levels—In order to know symbolic adoption pattern under various combinations of TOT methods with respect to knowledge gain levels, obtainable knowledge gain score was divided into three categories as low level (upto 34). Medium level (>34-67) and high level (>67-100). Symbolic adoption in the respective knowledge level under each selected combination was studied. The results are presented in Table-2.

Table 2. Symbolic adoption of mushroom cultivation under selected combinations with respect to knowledge gain levels

Sr. No	Knowledge gain levels	Symbolic Adoption (%)						
		Training + Demonstration	Farm Visit + Demonst-ration	FarmVisit + Training + Demonstration	FarmVisit +Training	Demonstration	Mushroom pathashala on AIR	Mushroom pathashala + Training
1	Low level (Upto 34)	00	100.00	—	—	00	69.23	—
2	Medium Level (>34-67)	66.67	37.50	00	40.00	100	80.00	80.00
3	High Level (>67-100)	60.00	—	66.67	83.33	—	80.00	83.33

The data given in table-2 reveal that under high knowledge gain level, highest percentage of symbolic adoption (83.83%) was found in two combinations viz., farm visit + training, and mushroom pathashala on AIR + training followed by mushroom pathashala on AIR alone (80.00%), farm visit with literature + training + on- farm demonstration (66.67%) and training + on-farm demonstration (60.00%).

As far as symbolic adoption in medium level knowledge gain category is concerned, it was learnt that a highest majority (80.00 %) of farmers were ready to adopt mushroom cultivation when mushroom cultivation technology was disseminated using mushroom pathashala on AIR singly and mushroom pathashala on Air+training followed by training+on-farm demonstration (66.67%), farm visit with literature+ training (40.00%) and farm visit with literature + on-farm demonstration (37.50%).

As an exception, 100 per cent symbolic adoption was noticed in medium level knowledge gain category under on-farm demonstration method due to only one adopter in all.

Among low level knowledge gain category, all the

farmers (100%) were ready to adopt mushroom cultivation under farm visit with literature + on-farm demonstration followed by mushroom pathashala on AIR (69.23%).

CONCLUSION :

It is obvious from the findings that except farm visit with literature and on-farm demonstration singly, rest of the combination viz. mushroom pathashala on AIR alone, mushroom pathashala+ training, farm visit with literature + training, farm visit with literature + training + on-farm demonstration, farm visit with literature + on-farm demonstration, and training + on-farm demonstration were found best integrated tools of transfer of technology for motivating and mobilizing farmers to adopt mushroom cultivation. In view of these significant results, it is concluded that integration of transfer of technology methods has impact over adoption of mushroom cultivation. The extension personnels engaged in transfer of mushroom cultivation technology, must apply these integrated TOT tools to enhance the extent of adoption of mushroom cultivation.

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