Study on the Extent of Recommended Mushroom Production Technology in Samastipur District

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Abstract- This paper is based on a research study at Rajendra Agricultural University, Pusa, Bihar, The title of the research was "Mushroom training programme of R.A.U. - a critical analysis of Samastipur district". It was conducted by taking the responses from sixty respondents included 30 beneficiaries and 30 nonbeneficiaries through personal interview. The all sixty respondents were from Thahara and Morsand panchayats of PUSA block. The objective of the study was to assess the extent of recommended mushroom production technology in Samastipur district. The statistical tools like mean, frequency, percentage, standard deviation and t- test were used for data analysis. The analysis revealed that adoption level of beneficiaries was found to be higher than non-beneficiaries and this was statistically significant. Hence, mushroom training had been successful and had significant impact on mushroom growers. Therefore, training programme needs to be given to large number of respondents in order to enhance adoption and diffusion of innovation.

Index Terms- Adoption, production technology, etc.

I. INTRODUCTION

Mushroom is a fungus but every fungus is not a mushroom. Mushroom is a group of macroscopic fungi, which are distributed throughout world. It is fleshy, spore bearing body of fungus, typically produced above ground on soil or on its food source. They are very unlike green plants because they lack chlorophyll and therefore depend on performed food for their nutrition. They are known as "meat" of vegetable world (Has and James, 2009).

No leaves, no buds, no flowers yet fruits, this miracle played only by mushroom. This unique fruit is basically a gift of nature to poor as evident from its appearance on thatched house and rotten woods just after first shower. But its taste and flavor soon introduced its delicious dish in the kitchen of aristocrats and elites of the society. Mushroom have prized as the food of God on an account of their special flavor, nutritive value and medicinal property. It can be grown on all types of plants and agricultural waste and thus constitute highly nutritive source of food at low cost (Tewari and Pandey, 2002). Mushroom is an indoor crop, grown independent of sunlight and do not require fertile land (Chadda and Sharma, 1995).

A project was launched for popularization of mushroom cultivation in Bihar in Rajendra Agricultural University, Pusa, Samastipur in year 1990. The University has trained more than 14000 people including 6000 women for mushroom cultivation and the first batch of 20 youth came out in march 2003 having expertise on mushroom seed production and its cultivation as such. Total production of mushroom in Bihar is more than 2000 tonnes and it is increasing at vary fast rate. Oyster mushroom offers good potential for its cultivation in Bihar because of its tropical and sub-tropical nature.

The training imparted at Rajendra Agricultural University centre of mushroom production plays an important role in popularizing of mushroom production in Bihar. The trained people after getting proper know how and skill started its production in different parts of state. Apart from the trained person a lot of untrained person also started its production in different part of the state. These untrained people started its cultivation as income generating source by number of ways. Most of them started its cultivation by seeing their neighbor and fellow farmer. Some by reading farm magazine and other means. But methods of mushroom cultivation of these two groups differ a lot and the difference was mainly due to proper training taken before mushroom cultivation was started.

II. OBJECTIVE OF THE STUDY

It is with this assumption the present study has been planned to undertake with following specific objective.

• To assess the extent of recommended mushroom production technology in samastipur district

III. METHODOLOGY

The study was carried out in Samastipur District of Bihar. There are 38 districts in state and the dissemination of mushroom technology is fast in all districts of state. Out of 38 districts, Samastipur district was selected purposively for the study because of the fact that R.A.U. is located in same district and there is a training centre at R.A.U. All together there are 20 Blocks in Samastipur districts. Out of which Pusa block has been selected for study purpose based on assumption that the block has the largest number of trained beneficiaries. There are 13 Panchayats in Pusa block. Out of which two Panchayats were selected viz., Thahara and Morsand for the study purpose and two villages were selected Thahara and Morsand. A complete list of the beneficiaries who have under gone through training on mushroom cultivation from Rajendra Agricultural University was obtained from training centre, R.A.U, Pusa. Fifteen beneficiaries and fifteen non- beneficiaries' respondents from each of two selected panchayats were purposively selected. The nonbeneficiary respondents were chosen from the same village and care was taken to match these respondents with the experimental group as far as possible. Hence all total 60 respondents were selected. The respondents were selected through random sampling.

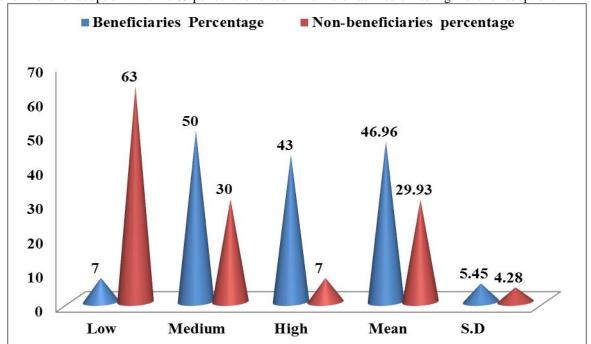
IV. RESULTS AND DISCUSSION

Training courses aim at enhancing adoption and diffusion of innovations. Some of the outcomes envisaged for any training programme, were gain in knowledge, gain in skill acquired and ultimately in more adoption and integration among farming community. An important objective of the training programme is to impart and transfer skill to the entrepreneurs of the technology of scientific mushroom cultivation and motivate them to adopt the same. An important indicator of the impact of training programme is the extent, to which they have adopted the package of practice of mushroom cultivation technology. An attempt was made to compare the adoption behavior of beneficiaries and nonbeneficiaries respondents with respect to mushroom cultivation. To measure the extent of adoption of mushroom production by beneficiaries a simple schedule was prepared consisting 22 items of adoption and respondents were asked to give their level of adoption on three point scale of 'full adoption', 'partial adoption', 'no adoption'. The data thus collected were analyzed and results are given in table 1.1.

 Table 1.1: Frequency and Percentage distribution of beneficiaries and non-beneficiaries with respect to their extent of adoption.

SI. No.	Category	Beneficia	aries (n=30)	Non-beneficiaries(n=30)		
190.		Frequency	Percentage	Frequency	percentage	
1.	Low (Mean - SD)	2	7	19	63	
2.	$_{\rm Medium(Mean}\pm{\rm SD}_{\rm)}$	15	50	9	30	
3.	High (Mean + SD)	13	43.33	2	7	
	Total	30	100	30	100	

As the result in table revealed, majority of beneficiaries had medium level of adoption i.e. 50 per cent followed by high level which is 43.33 per cent. Whereas, in case of non-beneficiaries majority had low level of adoption which is 63 per cent followed by medium level of adoption which is 30 per cent and only 7 per cent had high level of adoption. This study found similar results with the findings of Sunil *et al.*, (2009) where he reported trained farmers had medium to high level of adoption.



Description about the differences in the adoption scientific mushroom cultivation practices between beneficiaries and nonbeneficiaries. Further this difference is the mean adoption score of these two groups of respondents were tested for its statistical significance by calculating the t-value.

The computed value of t' (13.61) was found to be highly significant at (1 per cent level of significance) which indicated that there was significant difference in the mean adoption scores

of beneficiaries and non-beneficiaries. As the beneficiaries have significantly higher mean adoption scores (46.96) than that of the non-beneficiaries (29.73). So it can be concluded that the beneficiaries had higher adoption level than the non-beneficiaries.

Table 1.2. Differences in the adoption level towards scientific mushroom cultivation technology of beneficiaries and nonbeneficiaries.

Sl. No.	Characteristics	Mean adoption score of respondents		S.D of respondents		t- value
		Beneficiaries (30)	Non-beneficiaries (30)	Beneficiaries (30)	Non- beneficiaries (30)	
1.	Level of adoption about mushroom cultivation practices	46.96	29.93	5.45	4.28	13.61**

** Significant at 0.01 level of probability.

It was found that the level of adoption of beneficiaries with respect to mushroom cultivation practices was relatively higher than that of the non-beneficiaries. Knowledge about any improved practices and component skill for performing the technology are pre-requisites for adoption of any improved practices.

As pointed out earlier, in comparison to non-beneficiaries, the beneficiaries had higher level of knowledge towards scientific mushroom cultivation practices. In the training programme, the beneficiaries also got opportunity to learn and practice various skills associated with the scientific mushroom cultivation process. This practice might have given them edge for their adoption.

V. CONCLUSION

On the basis of the findings, it may be concluded that mean score of extent of adoption of Mushroom Production Technology among beneficiaries as 46.96 compared to that only 29.93 of non-beneficiaries. The extent of adoption score ranged from 42 to 64 among beneficiary but ranged from 15 to 40 among non-beneficiaries. This indicated very wide variation among the score of adoption among both samples. Mean difference between the extent of adoption scores of beneficiaries and non-beneficiaries were 16.76 which is statistically significant at 0.01 level of probability (t=13.61**). With respect to adoption of mushroom production technology, majority of trained beneficiaries were found to be 'medium adopting', this indicate that majority were adopting the method fully. Among the non-beneficiaries 63 per cent were 'low adopting' mushroom production technology.

Only 7 per cent were 'high adopting' mushroom production technology.

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