



Knowledge and Adoption Level in Mushroom Cultivation among Rural Women in Gumla district of Jharkhand

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ABSTRACT

A study was conducted in the district by the Krishi Vigyan Kendra, to study the extent of knowledge and adoption of eleven selected scientific cultivation practices of mushroom being followed by the farm women. To measure the extent of knowledge and adoption, 50 trained farm women were selected for the study. The results revealed that majority of the respondents were found to have high level of knowledge in mushroom cultivation activities i.e. 56 per cent followed by medium knowledge (28 %) and low knowledge (16 %). The overall mean per cent score for knowledge and adoption were found to be 83.5 and 76.8 per cent, respectively. The mushroom growing is such an enterprise in which requirement of land is not a big issue so even landless farmers can augment their income through mushroom cultivation.

Key Words: Adoption, Knowledge, Mushroom, Production, Technology.

INTRODUCTION

The Oyster mushroom (*Pleurotus sp.*) belonging to class Basidiomycetes and family Agaricaceae is popularly known as Dhingri in India and grows naturally in the temperate and tropical forests. It also grows on decaying organic matter and produces protein rich food. The best growing season is September/October to March/April. It requires a short growth time in comparison to other edible mushrooms. The economic importance of the mushroom lies primarily in its use as a food for human consumption. It is rich in vitamin C and B complex and the protein content varies between 1.6 to 2.5 per cent. Farmers were mainly focused on button mushroom than Dhingri.

Mushroom is considered to be a nutritious food, rich in protein, low in fat and carbohydrates. However, mushroom growing can help in a long way in the efficient utilization of agricultural and industrial waste. It can also play a significant role to alleviate poverty and generate employment opportunity for educated unemployed youth (Rachna *et al*, 2013 and Kaur, 2016). Mushroom farming is increasingly becoming attractive to small farmers

because the farmers in rural areas are convinced about the profits of mushroom farming within short time. This can enhance their empowerment to gain other farming skills; greater financial independence and also self-respect (Zhang *et al*, 2014). The vocational trainings were given by the Krishi Vigyan Kendra for the farmers, farm-women and unemployed youth to increase the income and make them self-dependent entrepreneur in future. So, the present study was undertaken to find out the knowledge and adoption level of farm women in mushroom cultivation techniques.

MATERIALS AND METHODS

A sample of 50 mushroom growing women farmers who were trained through training and demonstrations by the Krishi Vigyan Kendra, Gumla during last 5 years and engaged with mushroom cultivation were selected for the study by using proportionate random sampling technique. A questionnaire was designed to test the knowledge and adoption level. A numerical value of 1, 2 and 3 was assigned to low, medium, and high level of knowledge. Similar, scores were used

Table 1. Distribution of respondents according to their extent of knowledge and adoption in mushroom cultivation. N-50

Sr. No.	Parameter	Extent of Knowledge (%)			Mean Per cent Score	Extent of Adoption (%)			Mean Per cent Score
		Low	Medium	High		Low	Medium	High	
1	Methods of compost preparation	10	30	60	8.5	16	20	64	7.3
2	Importance of medicinal and nutritive value of mushroom	14	50	36	8.3	16	30	54	8.2
3	Designing of site of mushroom cultivation	10	20	70	7.1	14	36	70	7.3
4	Methods of spawning	10	54	36	6.3	4	22	74	8.1
5	Mushroom bag preparation	18	24	58	7.4	6	16	78	8.5
6	Disease control and pest management	18	56	26	6.4	16	48	36	5.3
7	Casing and pinning after mushroom cultivation	16	52	32	5.1	30	38	32	5.1
8	Health and safety at workplace	8	14	78	8.7	20	22	58	6.7
9	Harvest and post-harvest procedures	22	28	50	7.3	26	20	54	6.1
10	Marketing strategy	14	52	34	6.8	20	56	24	5.8
11	Recycling of spent mushroom substrate	8	10	82	8.8	12	26	62	8.6
	Overall	16	28	56	83.5	24	32	44	76.8

for ascertaining the adoption level. The data were classified by using mean scores, frequency and percentage.

RESULTS AND DISCUSSION

Knowledge level

It is clear from the Table 1 that in most of the activities of mushroom cultivation, majority

of respondents had high knowledge i.e. methods of compost preparation and its pasteurization (60%), designing of appropriate site of mushroom of mushroom cultivation (70%), process of mushroom bag preparation (58%), health and safety at workplace (78%), harvest and post-harvest procedures of mushroom (50%) and recycling of spent mushroom substrate (82%) while in the other

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activities i.e. importance of medicinal and nutritive value of mushroom, methods of spawning, disease control and pest management, casing and pinning after mushroom cultivation and marketing strategy for mushroom, majority of the respondents fell in medium knowledge category with 50, 54, 56, 52 and 52 per cent, respectively. Similar findings have been reported by Siddhant *et al* (2013). Similarly, Singh *et al* (2014) reported that majority of the participants gained low to medium level of knowledge on the vocation and opined for further training on some aspects of mushroom cultivation.

Adoption level

Majority of the respondents fell in high adoption level of category in most of the activities of mushroom cultivation (Table 1) i.e. methods of compost preparation and its pasteurization (64%), importance of medicinal and nutritive value of mushroom (54%), designing of appropriate site of mushroom of mushroom cultivation (70%), methods of spawning (74%), process of mushroom bag preparation (78%), health and safety at workplace (58%), harvest and post-harvest procedures of mushroom (54%), recycling of spent mushroom substrate (62%) while in activities like disease control and pest management, casing and pinning after mushroom cultivation and marketing strategy for mushroom cultivation, majority of the respondents fell in medium adoption category with 48, 38 and 56 per cent, respectively. Similar findings were reported by Kushwah and Chaudhary (2015).

The overall level of knowledge in mushroom cultivation activities was found to be high (56 %) followed by medium (28%) and low knowledge (16 %) of the respondents (Table 1). Likewise, majority of the respondents (44%) fell in high adoption category whereas 32 per cent were in medium adoption category and 24 per cent in low adoption category. The overall mean per cent score for knowledge and adoption were found to be 83.5 and 76.8, respectively. Similar findings were concluded by Sharma and Kumar (2010).

CONCLUSION

It was concluded that KVK is able to bring significant changes in the level of knowledge and adoption of mushroom cultivation technologies among trainees. Training and guidance given to trainees have played a prime role in influencing technological changes, besides management orientation. Further, the mushroom growing is such an enterprise in which requirement of land is not a big issue so even landless farmers can augment their income through mushroom cultivation.

REFERENCES

- Kaur K (2016). Impact of Training course on knowledge gain of mushroom trainees. *J Krishi Vigyan* 4 (2):54-57
- Kushwah S and Chaudhary S (2015). Adoption level and constraints in scientific oyster mushroom cultivation among rural women in Bihar. *Indian Res J Ext Edu* 15(3): 11-16.
- Rachna, Goel R and Sodhi G P S (2013). Evaluation of vocational training programmes organized on mushroom farming by Krishi Vigyan Kendra Patiala. *J Krishi Vigyan* 2(1): 26-29.
- Sharma V P and Kumar S (2010). Effect of substrate and cold water treatment on the productivity of Shiitake. *Mushroom Res* 19 (1): 22-26.
- Siddhant Y, Swapnil and Singh C S (2013). Spawn and Spawning Strategies for the cultivation of *Pleurotus eous* (Berkeley) Saccardo. *Int J Pharm Chem Sci* 2 (3): 1494-1500.
- Singh J, Chahal V P, Rathee A and Singh K (2014). Economic empowerment of scheduled caste (SC) landless rural women through mushroom cultivation: A case study. *African J Agri Res* 9 (52):3811-15.
- Zhang Y, Geng W, Shen Y, Wang Y and Dai Y C (2014). Edible mushroom cultivation for food security and rural development in China: bio-innovation, technological dissemination and marketing. *Sustainability* 6(5): 2961-2973.

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