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Evaluation of vocational training programmes on mushroom cultivation organised by Krishi Vigyan Kendra

NARENDER KUMAR, JASBIR SINGH and DEVENDER CHAHAL

ICAR- Krishi Vigyan Kendra (CCSHAU), Kaithal 136027 Haryana, India
Email for correspondence: narenderkvkkaithal@gmail.com

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ABSTRACT

The present study was undertaken from 2017-18 to 2019-20 to assess the gain in knowledge and skill of trainees through training programmes on mushroom cultivation to analyse their perception towards the training methodology and to find out the technical problems faced by the respondents during the training. Two hundred and forty trainees were imparted training on mushroom farming by conducting eight vocational campus training programmes. Maximum number of the trainees belonged to middle age group (62.18%) having education up to middle (48.28%) and primary (28.89%). The maximum weighted number achieved was 2.51 and minimum 1.82 by spawn production techniques and management of spent mushroom respectively. Results revealed that most of the beneficiaries were found to be satisfied with the many aspects of trainings viz training programmes, course content, time and duration, facilities and overall usefulness of trainings.

Keywords: Mushroom cultivation; training; evaluation; knowledge; skill

INTRODUCTION

Mushroom cultivation is a novel component of agriculture that can be easily integrated in the farming system to enhance the income of the farmers or can even be taken up as an independent activity on commercial scale. Mushroom farming can play a significant role to eradicate malnutrition, alleviate poverty and create employment opportunity for educated unemployed youth. In this context there is a wide spread agreement among agricultural scientists to the importance of adoption of mushroom farming as subsidiary occupation in rural areas. Cultivation of edible mushrooms is one of the most economically viable processes for the bioconversion of lingo-cellulosic wastes (Cohen et al 2002). Mushroom growing is one agricultural activity in which women can play a vital role without sacrificing their household responsibilities (Biswas et al 2012). To find out the success of any training programme a periodic appraisal and evaluation of what is being done is essential so that suitable changes can be made to make training programme more effective. The Krishi Vigyan Kendras (KVKs) are functional in various districts of India for imparting vocational trainings to different clientele groups. The vocational training programmes take into account all methods and means which result into skill development in rural youth in the areas of their interest (Lal and Tondon 2011). Krishi Vigyan Kendra, Kaithal, Haryana is imparting trainings in mushroom cultivation to the farmers, farm women and rural youth. During 2017-18 to 2019-20 eight such vocational training programmes were organized regarding mushroom cultivation in which 240 farmers participated. In order to evaluate the outcome of these training programmes a study was conducted to assess the socio-economic profile of the trainees, gain in knowledge and adoption status of the enterprise in mushroom cultivation among the rural farmers of Kaithal district.

METHODOLOGY

The study was conducted in Kaithal district of Haryana state. A proforma was developed comprising general information, background of participants such as age, education, occupation, family size etc. Age, education, family type, membership of society, farming experience and extension media contact were selected as independent variables while dependent variable of this was gain in knowledge of the trainees. Respondents

who had taken trainings on mushroom cultivation were personally contacted. Thorough trainings on various aspects of mushroom cultivation were given which included the mushroom cultivation techniques, spawn production techniques, insect and pest management, mushroom preservation and processing, management of spent mushroom and preparation of various recipes of mushroom etc. Skill demonstrations and video shows on mushroom production were arranged to the participants.

For the evaluation of trainings, these components were systematically incorporated in the interview schedule. Responses of the respondents were recorded in the 3-point continuum scale such as very important (VI), important (I) and not-important (NI) by assigning scores 3, 2 and 1 respectively (Sanjeev and Singha 2010). The results were calculated as weighted scores for each minor component.

Weighted scores were ranked within each discipline. Based on the rankings, the component that sought maximum attention under each thrust area was determined. The data were also depicted in the form of percentage of farmers giving response in very important category in each component.

$$\text{Weighted score (WS)} = \frac{(\text{Number of VI} \times 3) + (\text{Number of I} \times 2) + (\text{Number of NI} \times 1)}{\text{Total number of (VI + I + NI)}}$$

Perceptions of the beneficiaries were also studied through six aspects of trainings viz resource persons, course content, time and duration, practical activities, facilities and overall usefulness of the training programmes.

RESULTS and DISCUSSION

The data given in Table 1 show that maximum number of the trainees belonged to middle age group (62.18%), having education up to middle (48.28%) and primary (29.12%). The trainees were predominantly from rural background and more than 50 per cent belonged to nuclear families. The subsidiary occupation of mushroom farming attracted persons from farming background as the inputs required for its cultivation are readily available at their farms eg wheat straw, fertilizers etc. Approximately seventy seven per cent farmers belonged to the marginal and small categories. As mushroom farming enterprise does not require arable land so the respondents from marginal landholdings and landless categories wanted to adopt this enterprise to augment their family income. These results are in line with the findings of Goel and Sodhi (2013).

The data presented in Table 2 indicate the rankings given by the farmers to different components based on weighted scores which are: spawn production techniques (I), preparation of various recipes of mushroom (II), insect and pest management (III), mushroom cultivation techniques (IV), mushroom preservation and processing (V) and management of spent mushroom (VI). The maximum weighted number achieved was 2.51 and minimum 1.82 by spawn production techniques and management of spent mushroom respectively.

Sixty one per cent farmers were of the opinion that spawn production technique was the most important because non-availability of quality spawn was the major constraint and it was the basic input of the mushroom production technology. Similarly 52 per cent farmers gave importance to preparation of various recipes of mushroom because this was the new concept for trainees. To set up small scale entrepreneurship in mushroom cultivation the value-added products component was necessary. Similarly farmers gave importance to insect and pest management (46%) followed by cultivation techniques (40%), preservation and processing (34%) and management of spent mushroom (29%). These findings are in line with the Singh et al (2013).

Perceptions of the trainees were studied on five aspects of trainings viz resource persons, course content, time and duration, practical activities, facilities and overall usefulness of the training programmes. Results in Table 3 reveal that most of the beneficiaries were found to be satisfied with various aspects of trainings viz training programmes, course content, time and duration, facilities and overall usefulness of trainings. In case of practical activities, majority of the trainees were not found to be satisfied. Regarding overall usefulness of trainings programmes and facilities, trainees were observed to be more satisfied

Table 1. Socio-economic profile of the trainees

Variable	Frequency	Percentage
Age (years)		
Young (18-25)	70	29.12
Middle (25-45)	151	62.18
Old (>45)	19	8.00
Education level		
Illiterate	21	9.18
Primary	69	28.89
Middle	116	48.28
Matriculate	26	11.11
Higher secondary	8	3.33
Graduation and above	0	0.00
Family type		
Nucleus	128	53.33
Joint	112	46.67
Farm size		
Landless	48	19.58
Marginal (<1 ha)	109	46.67
Small (1-2 ha)	72	30.00
Semi medium (2-4 ha)	11	4.44
Medium (4-10 ha)	0	0.00
Large (>10 ha)	0	0.00

Table 2. Impact of mushroom cultivation trainings on knowledge of the respondents

Component	Very important	Important	Not important	Weighted score	Rank
Mushroom cultivation techniques	36 (40)	38 (42)	16 (18)	2.22	IV
Spawn production techniques	55 (61)	26 (29)	9 (10)	251	I
Insect and pest management	41 (46)	32 (35)	17 (19)	2.27	III
Mushroom preservation & processing	31 (34)	40 (45)	19 (21)	2.13	V
Management of spent mushroom	26 (29)	22 (24)	42 (47)	1.82	VI
Preparation of various recipes of mushroom	35 (39)	47 (52)	8 (9)	2.30	II

(weighted score 2.67 and 2.66 respectively) but lowest weight score was found in case of practical activities ie 2.16.

The high satisfaction was observed among 74 per cent trainees for overall usefulness of trainings, 68 per cent for time and duration, 62 per cent for facilities in Krishi Vigyan Kendra, 57 per cent for course content, 51 per cent for resource persons and 51 per cent for practical activities (Table 3). It was also found that satisfaction to some extent was observed for resource persons (38%), facilities (32%), course content and practical activities (29%), time and duration (20%) and overall usefulness of trainings (19%) whereas only few participants were not satisfied with respect to practical activities (28%), facilities (18%), course content (14%), time and duration (12%), resource persons (10%), overall usefulness of trainings (2.2%) during training programmes.

CONCLUSION

The present study was undertaken to assess the gain in knowledge of the participants and adoption status of the enterprise of the mushroom to enhance the entrepreneurship in mushroom farming. It was found that maximum weighted number was achieved 2.51 and minimum 1.82 by spawn production techniques and management of spent mushroom respectively. Results revealed that most of the beneficiaries were found to be satisfied with the many aspects of trainings viz training programmes, course content, time and duration, facilities and overall usefulness of trainings.

Table 3. Perception of trainees regarding specific aspects of mushroom trainings conducted by KVK

Component	Level of perception			Weighted score
	High	Medium	Low	
Resource persons	47 (51)	34 (38)	9 (11)	2.40
Course content	52 (58)	25 (28)	13 (14)	2.42
Time & duration	61 (68)	18 (20)	11 (12)	2.56
Practical activities	39 (43)	26 (29)	25 (28)	2.16
Facilities	46 (51)	28 (31)	16 (18)	2.67
Overall usefulness of trainings	68 (76)	15 (16)	7 (8)	2.66

REFERENCES

Biswas MK, Mukhopadhyay T and Bhattacharjee S 2012. Cultivation of paddy straw mushrooms (*Volvariella volvacea*) under the agro-ecological conditions of lateritic zone of West Bengal. In: Sustainable Agriculture and Environment (KMB Rahim, D Sarkar and BC Roy eds), New Delhi Publishers, New Delhi, India, 93-102.

Cohen R, Persky L and Hadar Y 2002. Biotechnological applications and potential of wood-degrading mushrooms of the genus *Pleurotus*. Applied Microbiology and Biotechnology **58(5):** 582-594.

Goel R and Sodhi GPS 2013. Evaluation of vocational training programmes organized on mushroom farming by Krishi Vigyan Kendra, Patiala. Journal of Krishi Vigyan **2(1):** 26-29.

Lal B and Tandon V 2011. Impact of vocational training programmes on knowledge gain by the rural youths. Journal of Community Mobilization and Sustainable Development **6(2):** 174-176.

Sanjeev MV and Singha AK 2010. Capacity building through KVKs: training needs analysis of farmers of Arunachal Pradesh. Indian Research Journal of Extension Education **10(1):** 83-90.

Singh D, Sharma V and Lal R 2013. Impact of trainings on scaling up the knowledge and adoption of new/improved farm practices by farmers of Kullu district in Himachal Pradesh, India. Indian Journal of Soil Conservation **41(3):** 299-303.