



CONSTRAINTS AND SUGGESTIONS FOR PROMOTING MUSHROOM AS AN ENTERPRISE AMONG THE WOMEN ENTREPRENEURS

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Abstract

Mushroom cultivation has proven to be one of the most remunerative enterprise but its adoption among the farm women has not found up to the mark due to certain constraints. The study conducted on 250 respondents selected from ten districts of Himachal Pradesh revealed that non-availability of raw materials particularly spawn and compost, complicated loan procedure, lack of government initiative, lack of awareness about nutritive value, lack of adequate technical guidance, irregular fluctuating production, perishable nature and lack of regulated market were some of the main constraints in adoption of mushroom as an enterprise. Hence, the study implies that good quality spawn and compost be made available in the nearby area, regular training programmes, establishment of processing facilities, ensuring better prices besides initiating sincere efforts by the government to promote mushroom as a small-scale industry in the area.

Keywords: Raw Material, Spawn, Compost, Processing Facilities, Technical Guidance, Regulated Market etc.

Introduction

Mushroom is considered as a complete health food suitable for all age groups. It is very rich in proteins, dietary fiber, vitamins and minerals. Besides an excellent source of vitamins especially C and B, it contains ergosterol that acts as a precursor for Vitamin D. In Himachal Pradesh cultivation of white button mushroom was initiated by Indian Council of Agriculture Research in the year 1961-62. India is exporting 105.4 tons of white button mushroom with a contribution of 15 percent of share in the world market (Singh et al; 2017). Though the cultivation of mushroom in the State has been in operation during the last five decades or so, yet its adoption as an enterprise among the women entrepreneurs was not found up to the mark due to certain constraints/problems. Keeping this in view, the present study was undertaken with the following specific objectives:

1. To identify the main constraints in adoption of mushroom as an enterprise.
2. To provide suggestive measures for promoting the adoption of mushroom among the women entrepreneurs.

Research Methodology

The study was conducted in ten districts of Himachal Pradesh. A list of all the trainees who had taken training on the scientific cultivation of mushroom during the year from 2016 to 2019 was collected from the State Department of Horticulture, Himachal Pradesh. Thus, in all 250 women respondents constituted the sample for the present study. Constraints were classified into five categories namely, Input-Supply Constraints, Economic Constraints, Social-personal Constraints, Technical constraints and Market Constraints. The response of each respondent was taken on three-point continuum scale i.e. Most Serious, Serious and Least Serious with a respective score of 3, 2 and 1. Total score under each constraint was computed by multiplying respondents' frequency with their respective score. Mean Seriousness Score (MSS) of each constraint was also calculated as under:

$$\text{Mean Seriousness Score (MSS)} = \text{Total Score} / \text{Number of respondents}$$

The data were collected with the help of well-structured and pre-tested interview scheduled by personally interviewing the respondents.

Results and Discussion

The main findings of the study are discussed as under:

1. Input- Supply Constraints

The respondents' response on the constraints pertaining to supply of critical inputs was taken and presented in Table-1.



Table-1: Respondents’ response on input-supply constraints

Sr. No.	Constraints	Response			Total Score	MISCS*
		Most Serious	Serious	Least Serious		
i.	Non-availability of compost in time	88	92	70	518	2.07
ii.	Inefficient system to deliver technical inputs at the door steps	46	56	148	398	1.59
iii.	Inadequate supply of spawn at appropriate time	75	83	92	483	1.93
iv.	Lack of cold storage facilities	105	70	75	530	2.12
v.	Non-availability of quality raw materials in the area	145	52	53	592	2.37
vi.	Non-availability of skilled labourers/ manpower	44	30	176	368	1.47
Overall Mean Input-Supply Constraints Score (OMISCS)						1.93

*MISCS=Mean Input Supply Constraints Score

It has been noted from the data that “Non-availability of quality raw materials in the area (MISCS=2.37)” and “Lack of cold storage facilities (MISCS=2.12)” were the most serious constraints while “Non-availability of compost in time (MISCS=2.07)” was found to be serious. However, other constraints like “Inadequate supply of spawn at appropriate time (MISCS=1.93)”, “Inefficient system to deliver technical inputs at the door steps (MISCS=1.59)” and “Non-availability of skilled labourers/ manpower (MISCS=1.47)” were found to be least serious constraints.

The reason for non-availability of raw material may be due to high demand and inadequate supply which is not in appropriate time in the area of study. Mushroom being perishable in nature requires storage facilities and lack of this facility creates great problems for the mushroom growers.

These findings were in agreement with those of Singh et al. (2008) of that lack of cold storage and non-availability of quality of spawn were the important constraints non-availability of spawn in time and high wage rate of labour were also perceived as major constraints in the study.

2. Economic Constraints

The respondents’ response on economic constraints was taken and presented in Table-2.

Table-2: Respondents’ response on economic constraints

Sr. No.	Constraints	Response			Total Score	MECS*
		Most Serious	Serious	Least Serious		
i.	High initial investment	92	44	114	478	1.91
ii.	High cost of spawn	13	79	158	355	1.42
iii.	Procedure of obtaining loan is difficult	180	48	22	658	2.63
iv.	Lack of government initiative in funding loans	220	26	4	716	2.86
v.	High rate of interest on loans	206	26	18	688	2.75
vi.	Insufficient subsidy on loan	110	114	26	584	2.34
Overall Mean Economic Constraints Score (OMECS)						2.32

*MECS= Mean Economics Constraints Score



It has been observed from the data that "Lack of government initiative in funding loans (MECS=2.86)", "High rate of interest on loans (MECS=2.75)" and "difficult procedure of obtaining loan (MECS=2.63)" were the most serious constraints. "Insufficient subsidy on loan (MECS=2.34)" were serious constraints. However, "High initial investment (MECS=1.91)" and "High cost of spawn (MECS=1.42)" were observed to be least serious constraints faced by them.

In order to take mushroom on a commercial scale, some type of financial assistance in the form of loan is required but it has been observed that the procedure of obtaining loan particularly for the women entrepreneurs is very difficult. High rate of interest on loan and no initiative taken by the Government in funding loans to the women mushroom entrepreneurs further exaggerates this problem.

Similar findings were reported by Gautam et al. (2014) who in a study on constraints in adoption of mushroom production enterprise reported that the main constraint faced by the mushroom growers was lack of support for mushroom entrepreneurs from government side and also there was lack of government schemes for mushroom production.

3. Socio-personal Constraints

The respondents' response pertaining to socio-personal constraints was sought and presented in Table-3.

Table-3: Respondents' response on socio-personal constraints

Table with 7 columns: Sr. No., Constraints, Response (Most Serious, Serious, Least Serious), Total Score, and MSPCS*. Rows include constraints like 'Lack of awareness about nutritive value of mushroom' and 'Unawareness about different sources of credit', ending with an overall mean score of 1.30.

*MSPCS= Mean Socio-personal Constraints Score

A cursory look at the data revealed that "Lack of awareness about nutritive value of mushroom (MSPCS=2.26)" followed by "Unawareness about different sources of credit (MSPCS=2.16)" and "Lack of mushroom growers association in the area (MSPCS=2.12)" were the serious problems/constraints faced by them.

Due to lack of awareness about the nutritive value of mushroom the demand of mushroom is not very high adversely affects the prices of mushroom. Moreover, due to lack of mushroom growers association at the local level the mushroom growers are not in a position to persuade the government for market intervention scheme for mushroom like that of an apple crop.

4. Technical Constraints

The respondents' response regarding technical constraints was obtained and presented in Table-4.



Table-4: Respondents’ response on technical constraints

Sr. No.	Constraints	Response			Total Score	MTCS*
		Most Serious	Serious	Least Serious		
i.	Lack of knowledge about composting	53	75	122	431	1.72
ii.	Complex spawn production technology	18	96	136	382	1.53
iii.	Lack of training in mushroom cultivation	79	99	72	507	2.03
iv.	Irregular fluctuating production	96	88	66	530	2.12
v.	Lack of adequate technical guidance/training before adoption of mushroom enterprise	114	52	84	530	2.12
vi.	Lack of technical guidance in post-harvest technology	57	158	35	522	2.09
vii.	Insufficient literature on mushroom cultivation in local language	22	0	228	294	1.18
viii.	Lack of awareness about training facilities	103	81	66	537	2.15
ix.	Lack of trained extension workers in the vicinity of village.	61	150	39	522	2.09
Overall Mean Technical Constraints Score (OMTCS)						1.89

*SA= Strongly Agree, A=Agree, UD=Undecided, DA=Disagree and SD=Strongly Disagree

*MTCS= Mean Technical Constraints Score

As per the mean technical constraint score “Lack of awareness about training facilities (MTCS=2.15)”, “Lack of adequate technical guidance/training before adoption of mushroom enterprise (MTCS=2.12)”, and “Irregular fluctuating production (MTCS=2.12)” were the most serious constraints. Similarly, “Lack of technical guidance in post-harvest technology (MTCS=2.09)” and “Lack of trained extension workers in the vicinity of village (MTCS= 2.09)”, “Lack of training in mushroom cultivation (MTCS=2.03)” were serious constraints faced by them for them. However, “Lack of knowledge about composting (MTCS=1.72)”, “Complex spawn production technology (MTCS=1.53)” and “Insufficient literature on mushroom cultivation in local language (MTCS=1.18)” were some of the least serious constraints.

Irregular fluctuation in the production of mushroom may be due to non-availability of quality material like spawn, compost etc. in time. It is very difficult for the women to go outside of their home due to more domestic responsibility and that is why they are unable to make contacts with the scientists/experts of mushroom to take technical guidance from them and moreover, the training centres are far away from homes. Similarly, the main reason for lack of awareness about training facility and trained extension workers in the vicinity of village might be due to the non-availability/appointment of trained specialist/extension workers particularly in the remote areas of the State.

These findings were in consonance with those of Shirur et al. (2016) who found that lack of technical information and exploitation by consultants were some of the major constraints faced by respondents.

5. Marketing Constraints

The respondents’ response on marketing constraints was obtained and presented in Table-5.



Table-5: Respondents’ response on marketing constraints

Sr. No.	Constraint	Response			Total Score	MMCS*
		Most Serious	Serious	Least Serious		
i.	Lack of regular market	35	145	70	465	1.86
ii.	Less remunerative price for mushroom	48	110	92	456	1.82
iii.	Mode of payment is inconvenient	13	13	224	289	1.16
iv.	Lack of transportation facilities	31	101	118	413	1.65
v.	Malpractices by the middlemen	39	103	108	431	1.72
vi.	Perishable nature of mushrooms	127	97	26	601	2.40
vii.	Problems of grading and packaging	0	75	175	325	1.30
viii.	Lack of organized marketing channels.	114	112	24	590	2.36
ix.	Fluctuation of market prices	30	72	148	382	1.53
x.	Lack of marketing intelligence	123	96	31	592	2.37
Overall Mean Market Constraints Score (OMMCS)					1.82	

*MMCS= Mean Market Constraints Score

It has been observed that “Perishable nature of mushrooms (MMCS=2.40)”, “Lack of marketing intelligence (MMCS=2.37)” and “Lack of organized marketing channels (MMCS=2.30)” were the most serious market constraints. “Lack of regular market (MMCS=1.86)” and “Less remunerative price for mushroom (MMCS=1.82)” were some of the serious problems for them. However, “Malpractices by the middlemen (MMCS=1.72)”, Lack of transportation facilities (MMCS=1.65)”, “Fluctuation of market prices (MMCS=1.53)”, “Problems of grading and packaging (MMCS=1.30)” and “Mode of payment is inconvenient (MMCS= 1.16)” were the least serious problems faced by them.

Since, mushroom crop is perishable in nature and immediately have to be sent to the market for sale but it has been observed that lack of transportation facilities and lack of regular market can create hurdles particularly when the mushroom from the other State enter into the local market which adversely affect the price of mushroom and thus the farmers are unable to get remuneration prices for their produce. Lack of technical guidance on when and where to sell their produce is another main constraint faced by the respondents.

Sharma and Kanbid (1994) also reported that no provision for sale of fruit in the local or nearby market, lack of transportation facilities, lack of storage facilities and no provision for remunerative prices for good quality produce were some of the main marketing constraints faced by the farmers in adoption of scientific Horticultural technology.

6. Suggestions for further promoting the adoption of mushroom as an enterprise

The suggestions were elicited from the respondents for further promoting mushroom as an enterprise and the data have been presented in Table-6.



Table-6: Suggestions for further promoting adoption of mushroom

Sr. No.	Areas	Suggestions	Response			TSS*	MSS*
			Most Important	Important	Least Important		
i.	Spawn/ Compost	a. Spawn/ Compost must be available in nearby district or place	202	17	31	671	2.68
		b. Good quality of spawn/ compost must be ensured	202	35	13	689	2.76
		c. Must be supplied at cheaper rates by the department	118	35	97	521	2.08
ii.	Market	a. Ensure better price for fresh mushrooms	158	61	31	627	2.51
		b. Government must offer appropriate schemes for mushroom	215	35	0	715	2.86
		c. Design packaging material of different sizes with engraved nutritional information	88	101	61	527	2.11
iii.	Research	a. New high yielding species/ varieties of mushroom be developed	132	73	45	587	2.35
		b. New machines and tools to reduce labour cost be developed	75	96	79	496	1.98
		c. Varieties with higher shelf-life be developed	110	79	61	549	2.20
		d. Easy pasteurisation method to save labour and energy be devised	66	123	61	505	2.02
		e. Low-cost technology to grow different mushroom be developed	118	96	36	582	2.33
iv.	Training	a. Training at nearby places be provided	158	22	70	588	2.35
		b. Comprehensive training for new entrepreneurs be regularly organised	141	48	61	580	2.32
		c. Follow up through regular visits to new mushroom growers' units	136	52	62	574	2.30
		d. Trainings on processing of mushroom must be organised	132	57	61	571	2.28
v.	Service	Processing facilities by the department be established at nearby place	180	39	31	649	2.60
vi.	Finance	a. Give loan facility at low rate of interest	233	0	17	716	2.86
		b. Subsidy to support mushroom units be encouraged	211	26	13	698	2.79
		c. Compost for seasonal growers at subsidised rate be ensured	193	35	22	671	2.68
vii.		a. Provision of remunerative prices by the Govt. agencies	154	88	8	646	2.58



	Policy	b. Promote mushroom enterprise as small scale industry	211	35	4	707	2.83
viii.	Awareness	a. Create awareness about mushroom as vegetarian food	48	96	106	442	1.77
		b. People be made aware about nutritional benefits of mushroom	83	110	57	526	2.10
Overall Mean Suggestion Score (OMSS)							2.41

*TSS= Total Suggestion Score, MSS= Mean Suggestion Score

On the basis of the Mean Score, the suggestions viz; Government must offer appropriate schemes for mushroom (MSS= 2.86), Give loan facility at low rate of interest (MSS= 2.86), Promote mushroom enterprise as small scale industry (MSS=2.83), Subsidy to support mushroom units be encouraged (MSS= 2.73), Good quality of spawn/ compost must be ensured (MSS= 2.76), Compost for seasonal growers at subsidised rate be ensured (MSS= 2.68), Spawn/ Compost must be available in nearby district or place (MSS= 2.68) and Processing facilities by the department be established at nearby place (MSS= 2.60) were found to be very important suggestions provided by the respondents for promoting adoption of mushroom as an enterprise among the women entrepreneurs. Similarly, Ensure better price for fresh mushrooms (MSS= 2.51), New high yielding species/ varieties of mushroom be developed (MSS= 2.35), Training at nearby places to be provided (MSS= 2.35), Comprehensive training for new entrepreneurs be regularly organised(MSS= 2.32) and Training on processing of mushroom must be organised (MSS= 2.28) were some other important suggestions provided by the respondents for promoting the adoption of mushroom as an enterprise among the women entrepreneurs in the State. The overall mean suggestion score of 2.41 indicates that all the suggestions elicited from the respondents were important for promoting mushroom as an enterprise.

Hence, it can be interpreted that the suggestions like the government must offer appropriate schemes for mushroom ensuring good quality of spawn/compost in nearby district or place, providing loan facilities at low rate of interest and subsidy to support mushroom units seems to be very important and justified without which it may be difficult to promote mushroom as an enterprise among the women entrepreneurs. Similarly, the suggestions like ensuring compost at subsidized rate provision of remuneration prices for quality mushroom and processing facilities at the nearby place needs proper attention by the administrators and policy makers for further promoting adoption of mushroom among the women entrepreneurs.

Khurana and Sharma (1995) in a study on constraints in mushroom cultivation also suggested that spawn and compost should be of good quality and must be supplied in time. The authors further recommended that government institutions should be actively support the intended growers in the form of financial assistance and the produce of taking loans should be simplified in order to avoid the inordinate delays.

Conclusion

The study concluded that non-availability of quality raw material, complicated loan procedure, lack of adequate technical guidance, lack of remunerative prices and lack of regulated markets were some of the main constraints faced by women entrepreneurs in adoption of mushroom as an enterprise. Therefore, it is suggested that concerted efforts should be made by the government to ensure the availability of raw materials, loan at low rate of interest, provision for regulated markets and remunerative prices besides regular training for promoting the adoption of mushroom among the women entrepreneurs.

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