

Original Research Article

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## Perceived Constraints in Mushroom Production Enterprise in West Bengal

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### ABSTRACT

The study was undertaken with an objective to assess perceived constraints of mushroom grower in mushroom production enterprise. The study was purposively undertaken in flood prone Malda district of West Bengal due to gaining popularity of mushroom production enterprise among rural women and unemployed rural youth who were adopting this venture for employment generation. The rural youth were very much interested in mushroom production enterprise but now they have perceived various constraints in adoption of this enterprise for self-employment. The various perceived constraints were assessed in terms of technical, economical, infrastructural, general and marketing constraints. Unavailability of quality spawn was highest ranked technical constraints. High cost of spawn and poor supply of spawn at appropriate time were highest ranked economical and infrastructural constraints respectively. Poor knowledge about nutritive value of mushroom and lack of local market were highest ranked general and marketing constraints respectively. It is therefore recommended that constraints should be minimized to boost up the enterprises. To do that, policy makers should come up with some suitable policies to minimize these constraints. Further, the extension agencies should take up skill oriented training programmes and awareness programmes for the mushroom growers and rural youth in large scale for their self-employment.

#### Keywords

Constraints,  
Economical,  
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### Introduction

Mushroom is a fungal growth that typically takes the form of a domed cap on a stalk, with gills on the underside of the cap. Mushroom also called 'white vegetables' or 'boneless vegetarian meat' contains ample amounts of proteins, vitamins and fibre (Sharma *et al.*, 2016). India has great potential for production of mushroom from abundantly available recyclable agro-waste like cereals straws, enormous domestic market, cheap manpower,

congenial climate, strong technical base and government support. Mushroom growing has been appreciated as a technically feasible and profitable venture and widely accepted by the researchers as a good venture for his income, employment generation and rural development.

Though it is highly recommended by researchers and extension agents but the farmers find various constraints in adoption of this enterprise. Researchers have revealed that

non availability of spawn, lack of well-organized markets, poor knowledge about financial assistance, news on mushroom poisoning and inadequate knowledge about mushroom preservation and recipes of mushroom items are the major constraints towards a sustainable mushroom industry (Majumder *et al.*, 2009 and Sharma *et al.*, 2016). An attempt was undertaken to find out the perceived constraints of these mushroom growers in the study area.

## Materials and Methods

The study was purposively conducted under flood prone Malda district in West Bengal where Mushroom cultivation is gaining popularity among rural women and unemployed rural youth who were adopting this venture for employment generation. The various perceived constraints were assessed in terms of technical, economical, infrastructural, general and marketing constraints. Respondents were selected from randomly selected 4 blocks of flood prone area of Malda district i.e., Harishchandrapur I, Ratua I, Ratua II and Manikchak through snowball sampling techniques. In all 80 respondents were selected having equal proportion of respondents from each block (i.e., 20 per block).

Constraints in adoption of mushroom production enterprise were measured by Henry Garrett Ranking Method. Garrett ranking technique (Garrett, 1981) was adopted to find constraints in adoption of mushroom production enterprise. The respondents were asked to rank the factors given. The orders of merit, assigned by the respondents were converted into ranks by using the following formula.

Percent Position of Each Rank =  $100 (R_{ij} - 0.5) / N_j$

R = Rank given for  $i^{\text{th}}$  factor by  $j^{\text{th}}$  individual  
N = Number of factors ranked by  $j^{\text{th}}$  individual

The percentage position of each rank thus obtained is converted into scores by referring to the table given by Henry Garrett. Then for each factor the scores of individual respondents were added together and divided by the total number of respondents for whom the scores were added.

## Results and Discussion

### Perceived constraints in mushroom production enterprise

The constraints in adoption of mushroom production enterprise were measured by Garret ranking method. Further, the constraints were measures in terms of technical, economical, infrastructural, general and marketing constraints. These fives aspects of constraints were discussed in details below.

#### Technical constraints

Table 1 shows that unavailability of quality spawn (MS= 71.83) was highest ranked constraint followed by high incidence of insect-pest and disease (MS= 64.75) and lack of knowledge about composting (MS= 54.60) were the major perceived constraints in terms of technical constraints in mushroom production enterprise by mushroom grower. Sharma *et al.*, (2016) reported that main problem related to production of mushroom was that of insect-pest attack and incidence of diseases was high.

#### Economical constraints

Table 2 depicts that high cost of spawn (MS= 70.95) was highest ranked constraint followed by unawareness about different sources of credit (MS= 55.10) and high initial

investment (MS= 53.46) were the major perceived constraints in terms of economical constraints in mushroom production enterprise by mushroom grower. Lack of government scheme for mushroom production

was major economic constraints (Kumari *et al.*, 2018). Roy *et al.*, (2018) reported that lack of credit facility was the major financial constraints in adoption of Darjeeling mandarin orange.

**Table.1** Perceived technical constraints in mushroom cultivation

Sl. No.	Constraints	Score	Mean Score (MS)	Rank
1.	Unavailability of quality spawn	5746	71.83	I
2.	High incidence of insect-pest and disease	5180	64.75	II
3.	Lack of knowledge about composting	4368	54.60	III
4.	Complex spawn production technology	4043	50.54	IV
5.	Irregular production	3586	44.83	V
6.	Lack of technical guidance in host harvest technology	3384	42.30	VI
7.	Insufficient literate on mushroom cultivation	3190	39.88	VII
8.	Lack of trained extension workers	2903	36.29	VIII

**Table.2** Perceived economical constraints in mushroom cultivation

Sl. No.	Constraints	Score	Mean Score (MS)	Rank
1.	High cost of spawn	5676	70.95	I
2.	High initial investment	4277	53.46	III
3.	Unawareness about different sources of credit	4408	55.10	II
4.	Difficult loaning procedure	3369	42.11	VI
5.	Lack of government initiative in funding loans	3772	47.15	IV
6.	High rate of interest on loans	3499	43.74	V
7.	Unavailability of subsidy on loan	3319	41.49	VII

**Table.3** Perceived infrastructural constraints in mushroom cultivation

Sl. No.	Constraints	Score	Mean Score (MS)	Rank
1.	Poor supply system of spawn at appropriate time	5618	70.23	I
2.	Poor delivery system of technical inputs at the door steps	4116	51.45	III
3.	Unavailability of compost in time	4723	59.04	II
4.	Lack of cold storage facilities	3703	46.29	IV
5.	Unavailability of quality raw material in the area	3488	43.60	V
6.	Unavailability of skilled labourers	3353	41.91	VI
7.	Lack of knowledge about training facilities	3319	41.49	VII

**Table.4** Perceived general constraints in mushroom cultivation

Sl. No.	Constraints	Score	Mean Score (MS)	Rank
1.	Poor knowledge about nutritive value of mushroom	5491	68.64	I
2.	Social taboos among people	5061	63.26	II
3.	Misconception about mushroom consumption	4600	57.50	III
4.	Less risk bearing capacity of mushroom grower	4019	50.24	IV
5.	Lack of marketing intelligence	3612	45.15	V
6.	Lack of mushroom growers in the area	3344	41.80	VI
7.	Lack of transportation facilities	3250	40.63	VII
8.	People regard mushroom as a non-veg. food	3023	37.79	VIII

**Table.5** Perceived marketing constraints in mushroom cultivation

Sl. No.	Constraints	Score	Mean Score (MS)	Rank
1.	Lack of local market	5459	68.24	I
2.	Less remunerative price for mushroom	5047	63.09	II
3.	Lack of regular market	4605	57.56	III
4.	Fluctuation of market price	4103	51.29	IV
5.	Existence of the middlemen	3569	44.61	V
6.	Perishable nature of mushrooms	3328	41.60	VII
7.	Problems in grading and packaging	3345	41.81	VI
8.	Lack of organized marketing channels through cooperatives	2944	36.80	VIII

**Infrastructural constraints**

Table 3 reveals that poor supply of spawn at appropriate time (MS= 70.23) was highest ranked constraint followed by unavailability of compost in time (MS= 59.04) and poor delivery system of technical inputs at the door steps (MS= 51.45) were the major perceived constraints in terms of infrastructural constraints in mushroom production enterprise by mushroom grower. Lack of cold storage facilities was the major constraints in storage constraints (Singh *et al.*, 2008).

**General constraints**

Table 4 shows that poor knowledge about nutritive value of mushroom (MS= 68.64)

was highest ranked constraint followed by social taboos among people (MS= 63.26) and misconception about mushroom consumption (MS= 57.50) were the major perceived constraints in terms of general constraints in mushroom production enterprise by mushroom grower.

**Marketing constraints**

Table 5 depicts that lack of local market (MS= 68.24) was highest ranked constraint followed by less remunerative price for mushroom (MS= 63.09) and lack of regular market (MS= 57.56) were the major perceived constraints in terms of marketing of mushroom by mushroom grower. Lack of proper marketing channel was major

constraints in adoption of mushroom production enterprises (Goutam *et al.*, 2014 and Kumari *et al.*, 2018). Fluctuating price prevailing in the market was the major marketing constraints (Singh *et al.*, 2008).

It is already established that mushroom production enterprise has a high potential in employment generation of rural youth. But, the study has shown that the mushroom growers perceived various constraints in adoption of mushroom production enterprises in the study area. It is therefore recommended that constraints should be minimized to boost up this enterprise. To do that, policy makers should come up with some suitable policies to minimize these constraints. Further, the extension agencies should take up skill oriented training programmes and awareness programmes for the mushroom growers and rural youth in large scale for their self-employment.

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