



Research Article

Disposal pattern and major constraints of mushroom production in Jorhat district of Assam

■ TRISHNALEE SAIKIA, HORINDRA GOGOI AND J.P. HAZARIKA

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SUMMARY : The study was conducted in Jorhat district of Assam to examine the disposal pattern and constraints faced by the mushroom producers. The average production of mushroom was found 211.37 kg per grower per crop (season) which varied from 30.70 kg in group I to 599.60 kg in case of group IV. Percentage of marketed surplus to total production was found highest in group I (95.11 %) and lowest in group IV (89.00 %) which showed an decreasing trend with the increase in farm size. Out of the total marketed surplus, 87.20 per cent were sold within the state markets, whereas the rest 12.80 per cent were marketed outside the state markets. Study also revealed that mushroom growers faced various types of production, marketing, financial and social constraints.

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KEY WORDS :

Mushroom production, Disposal pattern, Constraints

BACKGROUND AND OBJECTIVES

Mushrooms have been utilized as an article of food since ancient times and achieved significant importance due to their nutritive and medicinal values. Mushroom based agro industries and processing units have ample potential of creating gainful employment of rural population and entrepreneurship development. Cultivation technology of mushroom is very much easier, and it also involves low initial investment and cost of production. So, rural youth and farmers can take up mushroom cultivation as an enterprise due to high return compared to other agricultural enterprises. Assam is in an advantageous position for production of mushroom on commercial basis for its congenial climatic condition and abundance of raw materials. With little modification in growing house and using of heat tolerated species, oyster mushroom can be grown round the year in Assam (Anonymous, 1999-2000). Many studies reported that like other agricultural crops, mushroom cultivators also faced various problems in production and disposal of the produce. Deshmukh *et al.* (2001) reported that marketing problem, non availability quality spawn, non availability of skilled labour, lack of

cold storage facilities were the problems of mushroom growers in the state of Maharashtra. Similarly, Sawant *et al.* (2001) also reported problems relating to production, marketing, finance, storage, preservation and drying of mushroom in Maharashtra state.

There are a good number of mushroom growers in Jorhat district of Assam who received training from State Institute of Rural Development (SIRD), Assam Agricultural University, Jorhat and Regional Research Laboratory, Jorhat on production technology of mushroom and accordingly they undertook the production of mushroom as an enterprise. Keeping in view above aspect, the present study was undertaken with the objective to examine the disposal pattern of mushroom and major constraints faced by the mushroom growers.

RESOURCES AND METHODS

The study was undertaken in Jorhat district of Assam. A list of mushroom growing Self Help Groups (SHGs) in the district was prepared in consultation with SIRD, Jorhat and accordingly a total of 12 no. of SHGs were listed out. All the 12 SHGs were taken up for sampling and from each

Author for correspondence :

TRISHNALEE SAIKIA
Department of
Agricultural Economics,
Krishi Vigyan Kendra
(A.A.U.), LAKHIMPUR
(ASSAM) INDIA
Email: saikiatrishnalee_2010@rediffmail.com

See end of the article for authors' affiliations

SHG, 5 mushroom growers were selected for final sample. The sample thus selected were stratified in to 4 size groups by cumulative frequency distribution method. Total frequency being 60, the groups were so constructed that each group composed of equal number of growers. The stratifications were as follows,

Group I: 0-50 bags (Growing 0-50 bags of mushroom)

Group II : 51-150 bags

Group III: 151-300 bags

Group IV: 301 bags and above

(A bag is a standard size prepared in polythene bag of size 40 cm x 60 cm, composed of alternate layers of rice straw and spawn, capable of holding 1 kg of dry rice straw)

Primary data were collected from sample mushroom growers with the help of a specially designed pre-tested schedule and questionnaires through personal interview method.

Data were analysed with simple statistical tools *viz.*, average and percentage.

OBSERVATIONS AND ANALYSIS

The findings of the study and the relevant discussions are summarised under the following heads:

Production and utilization pattern of mushroom:

The average production of mushroom was found 211.37 kg per grower per crop (season) which varied from 30.70 kg in group I to 599.60 kg in case of group IV. Per grower production of mushroom showed an increasing trend with the increase in size of the growers (Table 1). The average mushroom production per bag for the sample growers was observed to be 0.98 kg with a declining trend from smaller size group (group -I) to larger one (Group-IV).

Table 2 reveals that out of the total production, producers used a small portion (10.31 %) for home consumption. Home consumption of mushroom was observed to be lowest (4.89 %) in group I and highest in group IV (11.00 %) with an increasing trend over the size groups. In absolute terms also similar trend was observed. Average marketed surplus was found to be 89.69 per cent of the total production. The marketed surplus showed an increasing trend from the smaller size group (group-I) to larger size group (group-IV) in absolute terms. But, in relative terms, it continuously decreased from 95.11 per cent in size group I to 89.00 per cent in size group IV.

It was observed that four different types of market intermediaries were involved in the marketing of mushroom in the study area and they were namely local commission agent, distant commission agent, processor and retailer. Local commission agents used to collect mushroom from the growers and sold in the nearby villages as well as to distant commission agents /processors. On the other hand, distant commission agents used to collect mushroom from local commission agents or from the growers and sold it to either processors /retailers or directly to consumers. Disposal pattern of mushroom across various size groups of sample mushroom growers are presented in Table 3. The sample mushroom growers, on an average, were found to have marketed 87.20 per cent of the total marketed surplus within the state, out of which 30.30 per cent and 56.90 per cent was sold in the local and distant markets, respectively. On the other hand, 12.80 per cent marketed surplus was sold in the neighbouring states.

Constraints of mushroom growers:

Constraints faced by mushroom growers in the study area were grouped under four categories, *viz.*, production constraints, marketing constraints, financial constraints and social constraints; and presented in the Table 4 along with

Table 1 : Production pattern of mushroom across various size groups of sample mushroom growers

Size group	Frequency. of mushroom growers	Percentage of total growers	Total no. of mushroom bags	Production(kg)		
				Total	Per grower	Per bag
Group I	17	28.33	426	522	30.70	1.22
Group II	17	28.33	1616	1912	112.47	1.18
Group III	16	26.67	3960	4252	265.75	1.07
Group IV	10	16.67	6933	5996	599.60	0.86
Pooled	60	100.00	12935	12682	211.37	0.98

Table 2: Average production and marketed surplus of mushroom across various size groups of sample mushroom growers (in kg)

Size group	Average production	Home consumption	Marketed surplus
Group I	30.7 (100)	1.5 (4.89)	29.2 (95.11)
Group II	112.47 (100)	10 (8.89)	102.47 (91.11)
Group III	265.75 (100)	26.57 (10.00)	239.18 (90.00)
Group IV	599.6 (100)	65.95 (11.00)	533.65 (89.00)
Pooled	211.36 (100)	21.79 (10.31)	189.56 (89.69)

Figures within () indicate percentage to total production

Table 3 : Disposal pattern of mushroom across various size groups of sample mushroom growers (in kg)

Size group	Marketed surplus	Disposal pattern		
		Within the state		Sale in neighbouring state
		Local Market	Distant Market	
Group I	29.2 (100)	23.06 (78.97)	6.14 (21.03)	-
Group II	102.47 (100)	51.23 (50.00)	51.24 (50.00)	-
Group III	239.18 (100)	71.75 (30.00)	143.51 (60.00)	23.92 (10.00)
Group IV	533.65 (100)	106.73 (20.00)	320.19 (60.00)	106.73 (20.00)
Pooled	189.56 (100)	57.44 (30.30)	107.86 (56.90)	24.26 (12.80)

Figures within () indicate percentage to marketed surplus

Table 4 : Constraints faced by the mushroom growers (%)

Constraints	Size groups				Pooled	Rank
	Group I	Group II	Group III	Group IV		
Production constraints						
Non availability of spawn in time	70.60	58.80	31.20	-	45.50	VI
Non availability of labour in time	29.40	7.60	37.50	40.00	30.00	IX
Disease and insect pest attack	29.40	23.50	31.20	30.00	28.30	X
Non availability of scientific drying facility of mushroom cultivators	47.06	52.94	43.75	50.00	48.33	IV
Marketing constraints						
Lack of consumer demand for fresh mushrooms in local market	70.60	88.20	75.00	50.00	73.33	I
Lack of regular markets (daily) for selling of mushrooms	76.50	70.60	75.00	-	61.67	II
Losses on account of perishable property of mushrooms	47.06	58.80	50.00	40.00	50.00	III
Non receipt of remunerative price for Mushroom	28.05	25.67	23.14	20.94	24.88	XI
Delayed payment for the sale of produce	29.41	35.29	43.75	60.00	40.00	VIII
Financial constraints						
Difficulty in getting loan from financial institutions.	47.06	47.06	50.00	40.0	46.67	V
Lack of govt. initiatives for financial assistance	58.80	47.06	43.75	-	41.67	VII
Social constraints						
Lack of awareness of people about the nutritive and medicinal value of mushroom	52.94	47.06	56.25	40.00	50.00	III
Fearfulness of people about the toxicity of mushroom	47.06	41.18	50.00	50.00	46.67	V

ranks. Among the production constraints, non availability of scientific drying facility of mushroom is the major problem which was reported by 48.33 per cent growers followed by non availability of spawn in time as reported by 45.50 per cent sample mushroom growers. Non availability of labour in time, and disease and insect pest attack are two production constraints reported by 30.00 per cent and 28.30 per cent growers, respectively.

Five marketing constraints faced by mushroom growers were identified in the study area. Among these, lack of consumer demand for fresh mushrooms in local market, lack of regular markets (daily) for selling of mushrooms and losses on account of perishable property of mushrooms are major problems reported by 73.33 per cent, 61.67 per cent and 50.00 per cent growers, respectively.

The common financial constraints encountered by sample mushroom growers were difficulty in getting loan from financial institutions, and lack of govt. initiatives for financial

assistance. Problem like difficulty in getting loan from financial institutions was reported by 46.67 per cent growers, while lack of govt. initiatives for financial assistance was reported by 41.67 per cent growers.

Lack of awareness of people about the nutritive and medicinal value of mushroom (50.00 %), and fearfulness of people about the toxicity of mushroom (46.67 %) were two major social problems as observed in the study area.

Conclusion:

The findings of the study indicates that out of the total marketed surplus major portion (87.20 %) was marketed within the state and only a small portion (12.80 %) was sold in the neighbouring other North Eastern States where there is a heavy demand for mushroom. Study also revealed that mushroom growers faced various types of production, marketing, financial and social constraints with varying degree which require to be intervened immediately with appropriate policy measures.

Authors' affiliations :

HORINDRA GOGOI, Department of Agricultural Economics, Krishi Vigyan Kendra (A.A.U.), DHEMAJI (ASSAM) INDIA

Email: horindra@gmail.com

J.P. HAZARIKA, AICRP on Integrated Farming System, Assam Agricultural University, JORHAT (ASSAM) INDIA

Email: jayantahazarika550@gmail.com

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