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## Study on marketing of mushroom (button mushroom) in Dehradun District of Uttarakhand

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#### Abstract

Study on marketing of mushroom (button mushroom) in Dehradun district of Uttarakhand both primary and secondary data were used. This study was conducted during the 2021-2022 agriculture year. Out of 100 percent, 10 percent of respondent were selected for the study. The present study revealed the Marketing margin, Marketing Efficiency, *Marketing cost*, Price Spread. Marketing efficiency and producer's share in consumer rupee were found highest in a channel I follow by channels II, III. Marketing cost, marketing margin merging as well as price spread was found highest in channel III followed by channel II, I.

**Keywords:** Marketing cost, Marketing margin, Marketing efficiency, price spread

#### Introduction

India is not a major producer of any particular variety of the mushroom, but it does cultivate mushrooms and has great potential as an important producer in the future. From a production stand point, the white button mushroom has the highest growth rate and potential for production. However, the cultivation of oyster mushrooms has been more common since the end of the last century, when the infrastructure of oyster mushroom was much improved, therefore capital requirements went down as compared to requirements for white button mushroom cultivation. Mushroom production in the country was started very late in the 70s. Its growth, both in terms of productivity as well as production has been phenomenal. In seventies and eighties button mushroom was grown as a seasonal crop in the hills, but with the development of the technologies for environmental controls and increased understanding of the cropping systems, mushroom production shot up from mere 5000 tonnes in 1990 to 1,00,000 tonnes in 2006. Mushroom farming today is being practiced in more than 100 countries and its production is increasing at an annual rate of 67 percent. In some developed countries of Europe and America, mushroom farming has attained the status of a high-tech industry with very high levels of mechanization and automation. The United States is the largest consumer of this protein rich delicacy. Present world production of mushrooms is around 12 million tonnes and is growing at an annual rate of more than 7 percent. It has been estimated that the demand and production of mushrooms will sustain the growth and it may reach, 25 million tonnes by 2020 and 30 million tonnes by 2025. The ranking of mushroom production worldwide is button 31 percent, shiitake 24 per cent, oyster 14 percent, black ear mushroom 9 per cent, paddy straw mushroom 8 per cent and rest is milky/others. Presently, three geographical regions contribute to about 96 per cent of world mushroom production—Europe, America and East Asia. Important reason for the concentrated mushroom production in American and European countries is that six countries, called G6, belonging to these regions, consume about 85 percent of world production [(USA 30 percent, Germany 17 percent, UK 11 percent, France 11 percent, Italy 10 percent and Canada 6 per cent] (Source: Mushrooms Cultivation, Marketing and Consumption, Directorate of Mushroom Research (Indian Council of Agricultural Research) Chambaghat, Solan (HP).

#### Materials & Method

##### Selection of District

Uttarakhand consists of 13 districts, among these districts, Dehradun district was selected purposively for present study. Most of the mushroom cultivation in Dehradun district in Uttarakhand so I was selected Dehradun district.

### Selection of Blocks

Out of 5 blocks under Dehradun district doiwala block was selected purposively

### Selection of village

Out of total villages which are about 75 villages under doiwala block 5% villages were selected for the study.

### Selection of Respondent

There were maximum mushroom respondents in Doiwala. A list of all the mushroom growers of block was prepared. Out of total mushroom respondents of the mushroom growers were selected with the help of randomly data.

### Analytical tool

To full fill the specific objectives of the study, based on the nature and extent of the data, the following analytical tools and techniques will be adopted.

### Marketing margin

It is the profit earned by the market intermediaries in moving the commodity from producers to the consumer while performing various market functionalities.

$$\text{Absolute Margin} = p_{Ri} - (p_{pi} + C_{mi})$$

$$\text{Percentage Margin} = \frac{p_{Ri} - (p_{pi} + C_{mi})}{p_{Ri}} * 100$$

$p_{Ri}$

Where,

$p_{Ri}$  = Total value of goods (purchase price) and

$C_{mi}$  = Cost incurred in Marketing.

### Marketing Cost

It is the costs incurred by the producers and other intermediaries to perform various functions in the marketing channel.

### Marketing cost

$$C = CF + CM1 + CM2 + CM3 \dots + CMN$$

Where,

C is Total Marketing cost.

CF is a cost paid by the producer.

CM1 is a cost incurred by 1<sup>st</sup> middleman.

### Marketing Efficiency

Marketing Efficiency refers to the degree to that market costs mirror all obtainable, relevant info. If markets area unit economical, then all info is already incorporated into costs, and then there are no thanks to "beat" the market as a result of there are not any undervalued or overvalued securities obtainable.

$$MME = FP / MC + MM$$

Where,

MME is a modified measure of marketing effectiveness

FP = Price received by a farmer

MC = Marketing cost

MM = Marketing margin

### Price Spread

Price spread can be defined as the difference between the price paid by the consumer and the price received by the farmer.

$$\text{Price spread} = \frac{(\text{consumer price} - \text{The net price of producer})}{\text{Consumer price}} * 100$$

### Percentage formula

The percentage formula is used to find the share of a whole in terms of 100. Using this formula, you can represent a number as a fraction of 100.

$$\text{Percentage} = \frac{(\text{Value} / \text{Total Value}) * 100}{\% \text{ increase}} \left[ \frac{(\text{New number} - \text{Original number})}{\text{Original number}} \right] * 100$$

### Result and Discussion

To analyze marketing margin, marketing cost, market efficiency, price spread of mushroom (button mushroom) in Dehradun district of Uttarakhand"

**Table 1:** Marketing Cost, Marketing Margin and Price Spread in different Size of Farms Group Number of Respondents=120 S M L= 60+36+24=120

Channel-I = Producer - Consumer (Value in Rupees)

Sl. No.	Particulars	Rs/Kg
1.	<b>Producer's sale price</b>	<b>120</b>
2.	Cost of packing	0.25
3.	Transport cost	1.75
4.	Cleaning, grading, etc.	1.02
5.	Miscellaneous expenses	0.25
6.	Total expenses	3.27
7.	Net price received by the producer	116.73
8.	Consumer's purchase price	120
9.	<b>Price Spread</b>	<b>3.27</b>
10.	<b>Producers Share in Consumer Rupee</b>	<b>97.28</b>
11.	<b>Marketing Efficiency</b>	<b>36.70</b>

Table no 1- reveals that average marketing cost when producers sold their product to customer in the market was 120/kg, among this cleaning and grading, etc was Rs 1.02/kg, transportation cost Rs. 1.75/kg, miscellaneous expenses Rs. 0.25/kg. The total Price spread was Rs. 3.27/kg, producer share in consumer rupee 97.28 and market efficiency was 36.70 per cent respectively

**Table 2:** Marketing Cost, Marketing Margin and Price Spread in different Size of farms Group

Sl. No.	Particulars	Rs/Kg
1.	<b>Producer's sale price</b>	<b>110.00</b>
i.	Expenses borne by the producer	3.27
ii.	Cost of packaging material	0.25
iii.	Cleaning, Grading, filling etc.,	1.02
iv.	Load & transport	1.75
v.	Miscellaneous charges	0.25
2.	Net price received by the farmer	106.73
i.	Expenses borne by the retailer	4.54
ii.	Transportation cost	1.54
iii.	Rent of the shop	2.25
iv.	Loss, wastage and spoilage	0.75
v.	Margin of the retailer	20.00
3.	Retailer's sale price/ consumer's purchase price	134.54
4.	Price spread	24.54
5.	Producers Share in Consumer Rupee	81.76
6.	Marketing Efficiency	17.23

Channel-II = Producer - Retailer - Consumer

Number of Respondent= 120, S M L= 50+ 40+ 30 =120 (Value in Rupees)

Table no 2- reveals that average marketing cost when

producers sold their product to village merchants/Retailers in the market was Rs.110.00/kg. Transportation cost Rs.1.75/Kg, miscellaneous charges was Rs.0.25/Kg, packing material cost Rs.0.25/Kg and Cleaning, Grading, filling etc., Rs.1.02/Kg respectively. The average marketing cost sold to their produce through village merchants/retailers to the consumers, among these transportation Rs.1.54/Kg, carriage up to shop, losses and miscellaneous Rs.0.75/Kg per cent, and Rent of the shop Rs.2.25/Kg of the total marketing cost respectively. The total Price spread was Rs.24.54/Kg. Market efficiency was 17.23 per cent respectively.

**Table 3:** To determine the marketing cost and marketing margin & market efficiency of mushroom.

Sl. No.	Particulars	Channel I	Channel II
1	Total marketing cost	3.27	7.81
2	Total marketing margins		20.00
3	Price spread	3.27	24.54
4	Producer share in consumer rupee in per cent	97.28	81.76
5	Marketing efficiency in per cent	36.70	17.23

Table no 3- reveals that total marketing cost, marketing margin, price spread, Producers share in consumer rupee and marketing efficiency in both the marketing channels. The total market cost was higher in channel II (Rs.7.81/Kg) compared to channel I (Rs.3.27/Kg). And the total marketing margin and price spread was also seen higher in channel II (Rs.20/Kg and Rs.24.54.00) because in the channel II there are two intermediates where as in the channel I there is only one intermediate. The producer share in consumer rupee was higher in channel I Rs.97.28/Kg per cent. The marketing efficiency was higher in channel I 36.70 per cent respectively.

### Conclusion

Mushrooms have been recognized by Food and Agriculture Organization (FAO) as food item contributing to the protein nutrient to the diet of developing countries like India, where there is heavy dependence on cereal diets. The significant feature of mushroom is that this nutritious and tasteful food is cultivated entirely from waste products and converts a wide spectrum of agricultural and industrial waste into a substance on which the growth of mushroom is supported. After harvesting the mushroom, the solid residual left is organic compost with natural nutrients to further enrich the soil. Punjab State is producing about 60000 tonnes of mushroom. Being in close vicinity to the national capital *i.e.* Delhi. Haryana State is having high potential for mushroom cultivation.

In India, Punjab is the first position in production of mushroom of 60,000 tons and Uttarakhand second rank in production of 8000 tonnes. Haryana is the third rank in production of 7200 tonnes of mushroom. Uttar Pradesh is the fourth rank in production of 7000 tonnes of mushroom.

Uttarakhand is a leading state of mushroom production in India and potential increasing its production in near future. Its various species of mushroom present in different region, button mushroom has a high demand among consumer in Uttarakhand. Mainly three species of mushroom prefers and suitable for production like as button, paddy straw and milky mushroom. In state, some big mushroom growers are produce

continuous production in whole year and mostly mushroom growers two to three crop of button species can be harvest per year. Mushroom help to entancement of family income at less investment and after harvesting use of waste material for compost preparation. Uttarakhand state was major growing area of mushroom, In Uttarakhand plain zone was Dehradun district mushroom growers very skilled and higher production, Dehradun district large no of mushroom retailer and Wholesaler present. Mushroom production has been highly profitable for farmers, women and youth in Uttarakhand and like subsidiary occupation to get extra profit. The present study was therefore undertaken in Uttarakhand state to comprehensive study of different mushroom oyster, paddy straw and button mushroom. The specific objectives of study were:

1. To study the socio economic profile in the study area.
2. To find out the different marketing channel in the study area.
3. To determine the marketing cost, margin and marketing efficiency.
4. To identify the marketing problems of mushroom growers and suggested remedial measures.

The study was conducted in Dehradun district of Uttarakhand during 2020-21 and random selection of mushroom growers in selected district with help of at of mushroom growers in the study areas.

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