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Alok Kumar

P.G. Student Master of Business Administration (Agribusiness) Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh, India

Dr. Sanjay Kumar

Assistant Professor, Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh, India

Madhusudan Tiwari

Ph.D. Research Scholar, Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh, India

Corresponding Author:

Dr. Sanjay Kumar

Assistant Professor, Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh, India

Estimate the marketing cost, marketing margin, price spread, marketing efficiency, & marketing channels of oyster mushroom in Katihar, Bihar

Alok Kumar, Dr. Sanjay Kumar and Madhusudan Tiwari

Abstract

The study was designed with the prominent objectives to evaluate marketing cost, marketing margin, and marketing efficiency in the study area. Primary data were collected from 120 mushroom growers living in 7 randomly selected villages of purposively selected one block of Katihar district. The respondents were grouped into three categories, small, medium, and large on the basis of their production. The secondary data were selected from various sources like journals, newspapers, government officials, etc. It was observed that the total production of mushrooms for small, medium, and large farmers was (0-50) kg, (50-100) kg, (and 100 and above) kg. The marketing cost of per kg of mushroom in channel 1st was Rs. 3.25/kg and in channel 2nd was Rs 4.54/kg.

Keywords: Cost of production, gross return, marketing margin, net profit, marketing efficiency

Introduction

India is not a major producer of any particular variety of mushrooms, but it does cultivate mushrooms and has great potential as an important producer in the future. From a production standpoint, 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 mushrooms was much improved, therefore capital requirements went down as compared to requirements for white button mushroom cultivation. 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. Oyster mushroom is known as the wood fungus and in India is commonly known as "Dhingri". Oyster mushroom is scientifically known as *Pleurotus* spp. There are about 38 species described under genus *Pleurotus* from different part of the world, out of which 25 species are under cultivation. Oyster mushroom contains 90 percent moisture, 4-5 percent carbohydrate on wet weight basis, 20-35 percent protein, low sugar, low fat, low starch, high fiber and sodium potassium ratio. They contain good amount of Vitamin C and B complex (thiamine, riboflavin and niacin). It also contains minerals, iron (Fe), Phosphorus (P), Potassium (K) and sodium (Na) and also low but available form of Iron (Fe). Indian diet is primarily based on cereals (wheat, rice and maize), which is deficient in protein. Supplementation of a mushroom recipe in Indian diet will bridge protein gap and improve the general health of socio economically back ward communities. Earlier mushrooms were considered as an expensive vegetable and were preferred by affluent peoples for culinary purposes. Currently common populace also considers mushroom as a quality food due to its health benefits. Mushrooms comprise about 80-90% of water, and 8-10% of fiber. In addition to these, mushroom is an excellent source of vitamins especially C and B (Folic acid, Thiamine, Riboflavin and Niacin). Minerals viz., potassium, sodium and phosphorous are higher in fruit bodies of the mushroom. It also contains other essential minerals (Cu, Zn, and Mg) in traces but deficient in iron and calcium.

Materials and Methods

The survey method was adopted for collecting data on the cost of production and marketing of mushrooms. The data was collected from personal visits interviewing the selected respondents, and intermediaries in the marketing of mushrooms. The data was collected on the basis of production.

Monthly and village-wise data was recorded from various seasons and Reports and Epitomes published by the Department of Agriculture, Bihar state from various Government publications.

Analysis of data/ analytical tool used

The secondary data were analyzed from selected districts to obtain estimates of growth rates in the production, and marketing of mushrooms, and the primary data were compiled and analyzed to work out the cost of production and marketing of mushrooms.

Analytical techniques employed

For achieving the stated objectives, the following analytical procedure was adopted:-

(1.) Marketing Margin

Marketing margin of the intermediary calculated as the difference between total payments (marketing cost + purchasing price) and receipt (sales price) has been calculated as follows.

$$\text{Absolute margin} = \text{PRi} - (\text{Ppi} + \text{Cmi})$$

$$\text{Percent margin} = \text{Pri} - \frac{(\text{Pri} + \text{Cmi})}{\text{Pri}} * 100$$

Where,

Pri= Total value of receipts

Ppi= Total purchase value of goods (purchase price) and

Cmi= Cost incurred in Marketing

(2.) Cost of marketing

The total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it reaches the ultimate consumer will be computed as follows:-

$$C = \text{Cf} + \text{Cm1} + \text{Cm2} + \text{Cm3} + \dots + \text{Cmn}$$

Where

C = Total cost of marketing

Cf = Cost born by the producer from the time produce leaves the farm till the sale of the produce.

Cmn = Cost incurred by the middlemen in the process of buying and selling.

$$(3.) \text{Marketing Efficiency} = (\text{revenue} / \text{marketing cost}) * 100$$

$$(4.) \text{Price spread} = \frac{(\text{Consumer price} - \text{Net price of producer})}{\text{Consumer price}} * 100$$

$$(5.) \text{Percentage} = (x/y) * (100/1)$$

Where,

x = no of respondents responded,

Y= total no of respondents

$$(6.) \text{Average (x)} = \frac{\sum fn}{\sum f}$$

Where

x= Assumed mean

fn= Sum of deviations

f = Number of data point

Result and Discussion

Marketing channel

Marketing of mushrooms is an important aspect of the overall mushroom industry, as it helps to promote the benefits of consuming mushrooms and increase demand for mushroom products. There are several key strategies and tactics that can be used to effectively market mushrooms, which will discuss below.

One important aspect of the marketing of mushrooms is to highlight their nutritional benefits. Mushrooms are low in calories and high in fiber and a good source of vitamins and minerals including, vitamin D, potassium, selenium. Additionally, mushrooms are known to have immune boosting properties and may help to reduce inflammation in the body. By emphasizing these benefits in marketing materials, companies can help to position mushrooms as a healthy and desirable food choice.

Channel 1; Producer - Consumer

Channel 2; Producer – Retailer – Consumer

Marketing cost and marketing margin, price spread & marketing efficiency of mushrooms in Katihar district.

Channel-I = Producer – Consumer

Table 1: Reveals that the average marketing cost when producers sold their product to the customer in the market

Sl. No.	Particulars	Rs/Kg
1.	Producer’s sale price	120
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.	Price Spread	3.27
10.	Producers Share in Consumer Rupee	97.28
11.	Marketing Efficiency	36.70

Table 1; reveals that the average marketing cost when producers sold their product to the 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 percent respectively.

Channel-II = Producer –Retailer – Consumer

Table 2: Reveals that the average marketing cost when producers sold their product to village merchants/Retailers in the market

Sl. No.	Particulars	Rs/Kg
1.	Producer's sale price	110.00
i.	Expenses are 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 are 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.	The 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

Table 2; reveals that the 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 were 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 this transportation Rs. 1.54/Kg, carriage up to shop, losses and miscellaneous Rs. 0.75/Kg percent, 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 percent respectively.

Table 3: Estimation of Total Marketing Cost and Marketing Margin

Sl. No.	Particulars	Channel I	Channel II
1	Total marketing cost	3.27	7.81
2	Total marketing margins	3.02	20.00
3	Price spread	3.27	24.54
4	Producer share in consumer rupee in percent	97.28%	81.76%
5	Marketing efficiency in percent	36.70%	17.23%

Table 3; reveals the total marketing cost, marketing margin, price spread, Producers' share in consumer rupee, and marketing efficiency in both marketing channels. The total market cost was higher in channel II (Rs. 7.81/Kg) compared to the channel I (Rs. 3.27/Kg). And the total marketing margin and price spread were also seen higher in channel II (Rs. 20/Kg and Rs. 24.54.00) because in channel II there are two intermediates whereas in the channel I there is only one intermediate. The producer share in the consumer rupee was higher in channel I Rs. 97.28/Kg percent. The marketing efficiency was higher in the channel I 36.70 percent respectively.

Conclusion

Mushroom marketing follow different marketing channel in the study area Channel-I is followed by (36.70%) percent Marketing Efficiency and also Channel-II (17.23%) percent Marketing efficiency. Mushroom marketing follow different

marketing channel in the study area Channel-I is followed by (3.27%) percent marketing cost and also Channel-II (7.81%) percent. Mushroom marketing following different marketing channel in the study area Channel- II followed by a (20.00%) percent marketing margin.

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