

Case Study

Constrictions Encountered by Mushroom Farmers in Haryana: A Study of Sonipat District

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ABSTRACT

Mushroom cultivation is one of the way of upgrading the income of the farmers other than field crops, which eventually increase human resource directly or indirectly and paves the way for self-sustaining business opportunities for unemployed and weaker sections of the society. This study was an attempt to get the response of the respondents related to production, finance, marketing and social constrictions faced by them in mushroom farming in Sonipat district of Haryana. From Sonipat, two blocks i.e. Sonipat and Ganaur were selected purposively and from each block four villages were selected randomly. Further, from each block, sixty respondents were selected randomly. Thus, total one hundred twenty respondents were selected. The structured schedule was developed for data collection. The Study revealed that 'pests and diseases' and 'high perishability of produce' was the most important production constriction responsible for low economic viability of mushroom production. Whereas, 'Inadequate support from government' and 'difficulty of loan process' were the major obstacles related to Finance. In case of marketing the constraints like 'malpractices of middleman', 'lack of fixation of support prices', 'absence of regulated marketing channel' and 'price variation during season and off-season' were observed by the mushroom farmers in the study area. Similarly, 'lack of training facilities' for mushroom cultivation was a major social constraint.

HIGHLIGHTS

- ① Mushroom cultivation is a low cost and eco-friendly venture.
- ① Mushroom farming is indulged with various constrictions.
- ① Constrictions related to production and marketing are of big concern.
- ① Role of government organisations and extension agents is very important in mushroom farming.
- ① Value addition in mushroom is recommended to increase the shelf-life of mushroom.

Keywords: Perishability, constriction, economic viability, middleman, support price

Mushroom production has added a new facet in agrarian biosphere in current agribusiness scenario. The total mushroom production in India was 211 thousand MT in 2019-20 (Indiastat) and Haryana, Odhisha, Maharashtra, Punjab, Himachal Pradesh and Bihar are the leading producers of mushroom. In Haryana, the total mushroom production was 20050 tonnes during the year 2019-20 (DMR, Solan).

Mushroom cultivation is an eco-friendly and an economic venture for farmers since it can be grown in a limited indoor space by using agricultural

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wastes and the produce comes within a small span of time of four months (Sawant *et al.* 2001). Further, its cultivation needs a small investment which paves the way for self-sustaining business opportunities for unemployed and weaker sections of the society. Thus, the researchers and extension agents promote the cultivation of mushroom as a crop that will provide self-employment as well as additional earning for both semi-urban and rural people, specifically poor, small and marginal farmers, farm women, landless labours, rural unemployed youth, amateur entrepreneur and even retired or in-service person (Das, 2014; Biswas, 2015). But on the other hand, the farmers experience numerous constraints in mushroom farming such as non-availability of spawn, diseases, inadequate knowledge about financial assistance, markets, preservation techniques, recipes etc. (Sharma *et al.* 2016 and Majumder *et al.* 2009). These constraints act as a deterrent towards adoption of mushroom farming by the farmers. Therefore, the present study has been conducted to identify the limitations encountered by mushroom farmers that pose hindrances in mushroom farming and adoption of the mushroom entrepreneurial ventures.

METHODOLOGY

The study was conducted in Sonipat district of Haryana as it was the highest mushroom producing district of the state by employing both primary and secondary data. Additionally, two blocks from Sonipat district were selected purposively namely Ganaur and Sonipat as these are highest mushroom producing blocks of Sonipat district. To make the study more comprehensive, four villages were selected randomly from each block i.e. Rohat, Harsana, Baiyapur and Jagdishpur from Sonipat block and Khubru, Hirmazra, Rajlugarhi and Gumar from Ganaur block. From each block, sixty farmers were selected by using simple random sampling technique from total four villages and interviewed to collect the required information, thus making a total of one hundred twenty respondents. Further to make the study more comprehensible, the mushroom farmers were categorized into three categories i.e. small (<1000 qtls), medium (1001-2200 qtls) and large (>2200 qtls) based on the quantity of compost used. It has been found that 51, 47 and 22 farmers come under the small, medium

and large categories and were using 514, 1510 and 2961 quintals of average compost respectively, in Sonipat district. A structured schedule was prepared encompassing the constrictions faced by mushroom farmers concerning production, finance, marketing and social parameters. Based on responses, ranks were given to the different constrictions faced by the farmers. The gravity of constrictions was measured on following basis.

Respondents' response	Severity of constrictions
More than 66 percent	Very Serious
Between 33-66 percent	Serious
Less than 33 percent	Not So Serious

RESULTS AND DISCUSSION

The constraints of mushroom farming were measured in terms of production, financial, marketing and social constraints. These four aspects are discussed below in detail.

Production constriction

The data presented in Table 1 showed the list of various production constraints faced by the respondents. The data revealed that pests and diseases in mushroom (79.17%) has been faced by the majority of farmers irrespective of small, medium and large. It has been noticed that most commonly the diseases such as 'wet bubble' and 'dry bubble' predominantly affect the production adversely in the Sonipat district. This is followed by high temperature, lack of skilled personnel, lack of specialists for mushroom production, high cost of equipments and lack of quality spawn. The response to these constraints fall in the range of 46% to 65 %. The results also point out that small farmers have faced high cost of equipments and lack of quality spawn more harshly as compared to medium and large farmers because they are financially weak and are not aware about the places from where they can purchase the quality spawn. Comparable findings were also reported by Upmanya *et al.* (2020), Roy *et al.* (2020) and Kumar *et al.* (2018).

Financial constriction

Table 2 indicated the financial constrictions faced by the respondents in the study area. It was clear from the data that maximum respondents reported inadequate support from government, NGOs and

Table 1: Production related constrictions faced by mushroom farmers

Constrictions	Category of farmers					Severity of problem
	Small	Medium	Large	Overall	Rank	
Pests & diseases	82.35	78.72	72.73	79.17	1	Very Serious
High temperature	68.63	63.83	59.09	65.00	2	Serious
Lack of skilled personnel	66.67	68.09	54.55	65.00	2	
Lack of specialists for mushroom production	64.71	51.06	63.64	59.17	3	
High cost of equipments	72.55	40.43	40.91	54.17	4	
Lack of quality spawn	60.78	36.17	31.82	45.83	5	
Shortage of labour	33.33	27.66	22.73	29.17	6	Not So Serious

Table 2: Finance related constrictions faced by mushroom farmers

Constrictions	Category of farmers					Severity of problem
	Small	Medium	Large	Overall	Rank	
Inadequate support from government, NGOs and others	76.47	65.96	68.18	70.83	1	Very Serious
Difficulty of loan process	80.39	61.70	54.55	68.33	2	
High price of raw material	66.67	59.57	45.45	60.00	3	Serious
Lack of knowledge of credit facilities	70.59	42.55	40.91	54.17	4	

Table 3: Market related constrictions faced by mushroom farmers

Constrictions	Category of farmers					Severity of problem
	Small	Medium	Large	Overall	Rank	
Malpractices of middleman	84.31	74.47	77.27	79.17	1	
High perishability	80.39	76.60	77.27	78.33	2	Very Serious
Lack of fixation of support prices	80.39	68.09	72.73	74.17	3	
Absence of regulated marketing channel	74.51	72.34	72.73	73.33	4	
Price variation during season/off season	78.43	61.70	50.00	66.67	5	
Poor knowledge of post-harvest methods	62.75	46.81	45.45	53.33	6	
High transport charges	54.90	53.19	36.36	50.83	7	Serious
Lack of market	64.71	38.30	40.91	50.00	8	
Absence of storage facilities	37.25	31.91	31.82	34.17	9	
Lack of advertising	31.37	34.04	27.27	31.67	10	Not So Serious

other organisations (70.83%) followed by difficulty of loan process (68%) as very serious constrictions faced by them. However, high price of raw material (60%) and lack of knowledge of credit facilities (54%) were reported as serious constraints. Since, mushroom cultivation requires heavy investments in its initial stages and the farmers do not have sufficient funds to start afresh or expand their existing farms. For this reason, they approach the financial institutions to obtain loan. But, due to lack of knowledge and complex loan formalities farmers face a lot of difficulties to get finance from the financial institutions. However, the data presented in the table also showed that the problems related to finance affects small farmers' maximum

as compared to medium and large farmers. Similar findings were also reported by Upmanya *et al.* (2020), Rajkala *et al.* (2019) and Kumar *et al.* (2018).

Marketing constriction

Table 3 reported the marketing constrictions faced by the respondents. The data indicates that more than seventy four percent of respondents reported malpractices of middlemen as a major constraint followed by high perishability (78%), lack of fixation of support prices (74%), absence of regulated marketing channel (73%) and price variation during season/off- season (66%) respectively. Whereas, other marketing constraints fall in the range of

Table 4: Social constrictions faced by mushroom farmers

Constrictions	Category of farmers					Severity of problem
	Small	Medium	Large	Overall	Rank	
Lack of Training Facilities	82.35	61.70	40.91	66.67	1	Very Serious
Inappropriate extension efforts	74.51	51.06	50.00	60.83	2	
Non-adoption of technology	56.86	53.19	36.36	51.67	3	Serious
Lack of confidence	39.22	29.79	27.27	33.33	4	Not So Serious
Education level	29.41	27.66	22.73	27.50	5	

30% to 55%. It is evident that mushrooms are perishable in nature which decreases their shelf life and farmers can't store it for a longer time period. Consequently, farmers have to sell their produce after harvesting as soon as possible to fetch a good price in the market. The price of mushrooms changes on a daily basis as there is no fixed price for mushrooms in the market. On the other hand, the intermediaries of marketing channels exploit these farmers by purchasing the product at a very low price. Further, it was also observed from the table that small farmers are facing the marketing problems more acutely as compared to medium and large farmers particularly with respect to fixation of support prices, lack of market, lack of knowledge about post-harvest methods and price variations in season/off-season respectively. Results supporting the above findings were also reported by Shishri and Prabhakar (2021), Roy et al. (2020) and Upmanya et al. (2020).

Social constriction

The data reported in Table 4 specified the list of social constrictions faced by the respondents in the study area. The data disclosed that lack of training facilities was a major constraint in the study area followed by inappropriate extension efforts and non-adoption of technology. According to respondents, there are very few trainings that focus on practical exposure to mushroom farming rather most of the trainings focus on theoretical lectures. In addition, many farmers were not adopting the latest technologies of mushroom production because either they were not having the proper knowledge or awareness about these technologies and methods of mushroom production. Similar conclusions were also reported by Kushwah and Chaudhary (2016).

CONCLUSION AND SUGGESTIONS

Mushroom cultivation as a subsidiary occupation

provides plenty of opportunities for supporting rural livelihood. The present study analysed various production, financial, marketing and social constraints faced by the mushroom farmers in Sonipat district. Among all the constrictions, pests and diseases, high perishability of produce, malpractices of middleman, lack of fixation of support prices and lack of training facilities were found to be most crucial constraints which were responsible for low production and non-adoption of mushroom farming by the farmers. Therefore, it is suggested that the constrictions should be minimized to boost up mushroom farming. To do that, the government should provide better schemes and credit facilities for farmers. The government and policy makers should frame farmer friendly policies to minimize these constrictions and encourage value-addition in mushroom. However, the financial institutions should simplify their loan process for better understanding of farmers. Further, the extension agencies and scientists who are working in the Agricultural Universities, Krishi Vigyan Kendra (KVK) and State Governments should provide awareness, valuable and practical trainings to the rural youth to avoid the constraints of mushroom farming.

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