P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating: 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 7; Issue 10; October 2024; Page No. 365-368

Received: 05-07-2024
Accepted: 11-08-2024

Indexed Journal
Peer Reviewed Journal

Social status of oyster mushroom enterprisers in Chandrapur district of Maharashtra

[1]Kumare NM, [2]More SS, [1]Ghule KS, [1]Kulkarni SH and [1]Zine PS

[1]M.Sc. Scholar, Department of Agricultural Economics, College of Agriculture, Parbhani, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra India

[2]Associate Professor, College of Agriculture, Parbhani, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra India

DOI: https://doi.org/10.33545/26180723.2024.v7.i10f.1238

Corresponding Author: Kumare NM

Abstract

Mushrooms are the fruiting bodies of macro fungi. Today there are many species of mushrooms they are cultivated for edible, medicinal use and many nutritive value. Chaina was the largest producer of mushrooms in the world in 2020. India has tremendous potential for mushroom production and all commercial edible and medicinal mushrooms can be grown. *Pleurotus spp. (Oyster mushroom)*: It is one of the species of mushroom which is commonly cultivated in India known as Dhingri is an important edible mushroom gaining popularity in recent years because of its high nutritional value and ability to grow on diverse agricultural wastes. A sample of 60 respondents was selected randomly. They were categorized on the basis of numbers of beds into small, medium and large respondents selected for the oyster mushroom growers of Chandrapur district and from near Nagpur district was also included. Primary data was collected by personal interview method with the help of pre-test well prepared interview schedule for the year 2021-2022.Socio-economic characteristics of mushroom entrepreneurs were estimated. Average age of mushroom entrepreneurs estimated was for small 32.25, medium 32 and for large 32.35 which states that the experienced person as well as new generation were engaged in the mushroom cultivation. Results show that the level of education of the mushroom entrepreneurs obtained was for small 11.1, medium 13.35 and for large 12.75 i.e. the educational level of selected entrepreneurs was near the graduation and above the higher secondary school.

Keywords: Oyster mushroom, enterprisers, social status, Chandrapur district

Introduction

Mushrooms are the fruiting bodies of macro fungi. Today there are many species of mushrooms they are cultivated for edible, medicinal and many nutritive value. Food and Agricultural Organization reported that global mushroom production 20 together countries 93,879,022,609 pounds in the year 2020. Chaina was the largest producer of mushrooms in the world in 2020 contributing 88 billion pounds and accounting 94 per cent of mushroom production followed by Japan contributes 1,040 billion pounds and accounting 1.11 per cent and United States contributes 816 billion pounds, accounting 0.87 per cent of the world production. India has tremendous potential for mushroom production and all commercial edible and medicinal mushrooms can be grown. There is increasing demand for quality products at competitive rate both in domestic and export market. Though growth of mushroom will depend on increasing and widening domestic market in coming years, export market will be equally attractive. *Pleurotus spp. (Oyster mushroom)*: It is commonly known as Dhingri is an important edible mushroom gaining popularity in recent years because of its high nutritional value and ability to grow on diverse agricultural wastes. Mushroom is not a vegetable, but it usually uses a vegetable form. It is a rich source of vitamins and proteins, natural antibiotics, low calorie, and carbohydrate foods (Das, 2021) [4]. 1 cup of raw mushroom contains only 15 calories and 2.3 grams of carbohydrate. Mushroom 85-95 per cent water, 3 per cent protein, 4 per cent carbohydrate, 0.1 per cent fat, 1% mineral and vitamin (Rahman, 2018) [7]. Mushrooms contain sufficient amount of potassium, phosphorus, copper and iron but low levels of calcium mushrooms.

Methodology

The GBS mushroom and agribusiness Pvt. Ltd. GBS Chandrapur is working to promote mushroom production by providing training to rural youth, landless women, etc. they have popularized this agribusiness in the district. The company has provided training which has help to settle various mushroom production unit in the district. A sample of 60 respondents was selected randomly. They were categorized on the basis of numbers of beds into small (up to 100-120 beds), medium (120-300 beds) and large (more than 300 beds) respondents selected for the oyster mushroom growers of Chandrapur district and from near Nagpur district was also included. Primary data was collected from the sample oyster mushroom growers, rural vendors and retailers through interview method and personal

interview method with the help of pre-test well prepared interview schedule for the year 2021-2022.

Results and Discussion

Socio economic characteristics of mushroom entrepreneurs *viz*., age, level of education, caste, family size, total number of family member, number of family member involved in mushroom, marital status etc. were estimated and presented in table 1.

It could be seen from the table that, average age of mushroom entrepreneurs estimated was for small 32.25, medium 32.00 and for large 32.35 which states that the experienced person as well as new generation were engaged in the mushroom cultivation. Age is characteristics which directly or indirectly influencing the factors like technical knowledge, skill, knowledge of adoption etc.

Education is another important factor which helps in changing the attitude of mushroom entrepreneurs through adoption of modern technology in mushroom. Results show that the level of education of the mushroom entrepreneurs obtained was for small 11.1, mediun 13.35 and for large 12.75 i.e. the educational level of selected entrepreneurs was near the graduation and above the higher secondary school.

Table 1: Socio-economic characteristics of oyster mushroom enterpriser

Sr. No	Particulars	Units	Average		
			Small	Medium	Large
1)	Age	Years	32.25	32.00	32.35
2)	Education	Years	11.10	13.35	12.75
3)	Caste				
a.	Open	No.	6.00	7.00	7.00
b.	OBC	No.	8.00	5.00	4.00
c.	SC	No.	2.00	3.00	5.00
d.	ST	No.	2.00	3.00	3.00
e.	NT	No.	2.00	2.00	1.00
4)	Family type				
a.	Nuclear	No.	12.00	12.00	8.00
b.	Joint	No.	8.00	8.00	12.00
5)	Number family members	No.	5.25	5.35	2.80
6)	Number of family members involved in mushroom production	No.	1.40	3.10	6.10
7)	Marital status				
a.	Married	No.	13.00	16.00	15.00
b.	Unmarried	No.	7.00	2.00	5.00

The caste distribution of the farmer engaged in mushroom production according to the classification mentioned in table 1 showed that, in small category 6, medium category 7 and large category 7 respondent belonged to general category which included Maratha and for OBC category in small category 8, medium category 5 and large category 4 respondents. 2 small category, 3 medium category 5 and large category respondent from scheduled caste. From scheduled tribes 2 in small category, 3 in medium category and large category f 3. Small category 2, medium category 2 and only 1 large category from NT caste. An analytical perusal of data revealed that respondent of all the selected area were highly selected with the membership of general category and OBC caste.

Year of experience is important factor in mushroom production practiced very well so that mushroom production is high in both qualitatively and quantitatively. It is evident from the table 2 that majority of the farmer are young (0-5 years) experience 100 per cent in small category followed by medium category that was 85 per cent and in large category only 40 per cent respectively. Middle (6-10years) experience from large category that was 45 per cent followed by experience medium category that was 15 per cent and from small category no one respondents having middle (6-10 years) experience and from old (>10 Years) experience only from large category having experience that was 15 per cent. Overall the majority of respondents old (>10 Years) experience only from large category having experience that was 15 per cent. Overall the majority of respondents Table 2 indicates that, the majority of the respondents (40 per cent from small category, 35 per cent from medium category and 65 per cent from large category) were engaged in agriculture followed by who were engaged in business (10 per cent from small category, 10 per cent from medium category and from large category 5 per cent), service (from small category 15 per cent and medium category 15 per cent) and only 0.20 per cent from large category, dairy (20 per cent from small category, 15 per cent from medium category and 15 per cent from large category), other (15 per cent from small category, 25 per cent from medium category and 10 per cent from large category). Overall the majority of respondents having agriculture occupation that was 46.66 per cent followed by dairy and others that was 16.66 per cent and service 11.66 per cent and business 8.33 per cent respectively.

Table 2: Status of experience and occupation of oyster mushroom producer

Sr. No.	Particular	Categories	Frequency (N=60)				Percentage			
			Small (N=20)	Medium (N=20)	Large (N=20)	Overall (N=60)	Small	Medium	Large	Overall percentage
1	Years of experience	Young (0-5years)	20	17	8	45	100.00	85.00	40.00	75.00
		Middle (6-10 years)	0	3	9	12	00	15.00	45.00	20.00
		Old (>10 years)	0	0	3	3	00	00	15.00	5.00
2	Occupational level	Agriculture	8	7	13	28	40.00	35.00	65.00	46.66
		Business	2	2	1	5	10.00	10.00	5.00	8.33
		Service	3	3	1	7	15.00	15.00	5.00	11.66
		Dairy	4	3	3	10	20.00	15.00	15.00	16.66
		Other	3	5	2	10	15.00	25.00	10.00	16.66

Land holding is another important socio-economic status that states about the level of production of selected mushroom grower and affect the growers economy directly. The majority of growers having medium (2-4 ha.) size land that was 40 per cent from small category, 45 per cent from medium category and 30 per cent from large category, followed by growers having large (>4 ha.) size land that was 25 per cent from small category, 30 per cent from medium category and 35 per cent. For growers having small (l-2 ha.) size land that was 25 per cent from small category 25 per cent from medium category and 35 per cent from large category of mushroom growers and for marginal only 10 per cent from small category growers having (<1ha.) size land. They are having better economic condition. No landless grower was found.

Table 3: Status of land holding of oyster mushroom producer

Sr. No	Particulars	Frequency (N=60)			Percentage		
		Small (N=20)	Medium (N=20)	Large (N=20)	Small	Medium	Large
1	Landless	0	0	0	00	00	00
2	Marginal (<1ha.)	2	0	0	10.00	00	00
3	Small (1-2Hac.)	5	5	7	25.00	25.00	35.00
4	Medium (2-4hac.)	8	9	6	40.00	45.00	30.00
5	Large (>4hac.)	5	6	7	25.00	30.00	35.00

The below table 4 reveals that, maximum number of the respondents from small category mushroom growers (40 per cent) had pucca house followed by Kachcha (35 per cent) and mixed (25 per cent). Very few of them had hut type of house that was (10 per cent). The reason might to their poor socio-economic status.

Table 4: Status of house type of oyster mushroom producer

Sr. No	Particulars	Frequency (N=60)			Percentage		
		Small (N=20)	Medium (N=20)	Large (N=20)	Small	Medium	Large
1	Pucca	8	13	12	40.00	65.00	60.00
2	Kachcha	7	0	0	35.00	00	00
3	Mixed	5	7	8	25.00	35.00	40.00
4	Hut	2	0	0	10.00	00	00

Table 4 indicates that, from medium category mushroom growers maximum number of the respondents (65 per cent) had pucca house followed by mixed house (35 per cent). No kachcha and hut house respondents found in this category. According to table 4 from large category mushroom growers maximum number of the respondents (60 per cent) had pucca house followed by mixed house (40 per cent). No Kachcha and hut house respondents found in this category.

Social activities of the growers encompasses gram panchayath member, Taluka panchayat, Zilla panchayath, Youth club, Mahila mandal, Mushroom trainers, Society member, Milk co-operative member, Sarpanch and Maji sarpanch, No participation etc. Majority of the grower have no participation is in from small category mushroom growers (50 per cent), medium category (50 per cent) and form large category (30 per cent) followed by Taluka panchayat from small mushroom growers (15 per cent), medium category (15 per cent) and form large category (35 per cent) which is analyzed and present in table 4.6 also indicates mushroom trainer from large category (25 per cent). Almost all social activities, very less members are from Gram panchayat i.e small mushroom growers (20 per cent), medium category (10 per cent) and form large category (10 per cent), Mahila mandal from small category members (10 per cent) and medium category (14 per cent). Society members only from medium mushroom growers (10 per cent), Milk co-operative members are only small category members (5 per cent), respectively in table 5.

Table 5: Participation of oyster mushroom farmer in social activities

Sr. No	Particular	Frequency (N=60)			Percentage		
		Small (N=20)	Medium (N=20)	Large (N=20)	Small	Medium	Large
1	Gram panchayat	4	2	2	20.00	10.00	10.00
2	Taluka panchayat	3	3	7	15.00	15.00	35.00
3	District panchayat	0	0	0	00	00	00
4	Mushroom trainer	0	0	5	00	00	25.00
5	Society member	0	2	0	00	10.00	00
6	Milk co-operativr member	1	0	0	5.00	00	00
7	Sarpanch	0	0	0	00	00	00
8	Mahila mandal	2	3	0	10.00	14.00	00
9	No	10	10	6	50.00	50.00	30.00

According to table 6, maximum numbers of growers select the *Pleurotous florida* species of oyster mushroom form small category growers (40 per cent), medium (50 per cent) and (15 per cent) from large category mushroom growers. It means that, yield potential of *Pleurotous florida* is better than other species followed by *Pleurotous sajar-caju* species form small category growers (35 per cent), medium (25 per cent) and (35 per cent) large category mushroom growers. *Pleurotous oestrus* species was comparatively less i.e small category growers (25per cent), medium (25 per cent) and from large category (45 per cent) mushroom growers. Training is essential for oyster mushroom production which enhancethe efficiency, knowledge and yield of mushroom growers.

Table 6: Oyster mushroom species adopted by mushroom grower

Sr. No.	Particulars	Frequency (N=60)			Percentage		
		Small (N=20)	Medium (N=20)	Large (N=20)	Small	Medium	Large
1	*Pleurotous sajarcaju*	7	5	7	35.00	25.00	35.00
2	*Pleurotous florida*	8	10	3	40.00	50.00	15.00
3	*Pleurotous oestrus*	5	5	9	25.00	25.00	45.00

Most growers were exposed towards You tube in small category 30 per cent, medium category 20 per cent and in large category 15 per cent followed by News-paper in small category 15 per cent, medium category 15 per cent and in large category 10 per cent and Instagram in small category 10 per cent, medium category 20 per cent and in large category 10 per cent followed by Telegram in small category 10 per cent, medium category 10 per cent and in large category 15 per cent, Krishiloka in small category 10 per cent, medium category 15per cent and in large category 10 per cent. Television in small category 5 per cent, medium category 5 per cent and in large category 15 per cent and other sources in small category 10 per cent and medium category 10 per cent were analyzed and presented in table 7. Very small quantities of people books and leaflets of information for oyster mushroom production.

Table 7: Source of information

Sr. No.	Particular	Frequency (N=60)			Percentage		
		Small (N=20)	Medium (N=20)	Large (N=20)	Small	Medium	Large
1	News paper	3	3	2	15.00	15.00	10.00
2	Telegram	2	2	3	10.00	10.00	15.00
3	You tube	6	4	3	30.00	20.00	15.00
4	Leaflets	0	0	3	00	00	15.00
5	Krishiloka	2	3	2	10.00	15.00	10.00
6	ReshimeKrishi	2	1	2	10.00	5.00	10.00
7	Instagram	2	4	2	10.00	20.00	10.00
8	Television	1	1	3	5.00	5.00	15.00
9	Other source	2	2	0	10.00	10.00	00

Conclusion

1. It is concluded from the above aspects that the oyster mushroom growers was middles aged with near graduation level and above higher secondary school level.
2. The majority of the growers was belongs to male gender.
3. The 32 nuclear family as compare toless joint family i.e 28. It is evident majority of the respondents were married *i.e.* 44 farmer followed by unmarried 14 farmer.

References

1. Adams F, Ohene-Yankyera K. Socio-economic characteristics of subsistent small ruminant farmers in three regions of northern Ghana. Asian J Appl Sci Eng. 2014;3(3):351-364.
2. Alfred SD, Arifalo SF. Socio-economic and cultural factors that affect mushroom production in Southwest Nigeria. Agric Trop Subtrop. 2012;45(2):78-83.
3. Alfred SD, Ewuola SO. Socio-psychological factors affecting the adoption of agricultural innovation among rural households in Logo State, Nigeria. J Sustain Dev. 2004;1(2):41-52.

4. Das AK, Nanda PK, Dandapat P, Bandyopadhyay S, Gullón P, Sivaraman GK, Lorenzo JM. Edible mushrooms as functional ingredients for development of healthier and more sustainable muscle foods: A flexitarian approach. Molecules. 2021;26(9):2463.
5. Khan MI, Bisen S, Mahajan G. Socio-economic profile of vegetable farmers of Balaghat Murjhad farm, Waraseoni Madhya Pradesh. Int J Curr Microbiol Appl Sci. 2020;9(3):3252-3257.
6. Ogunmefun SO, Achike AI. Socio-economic characteristics of rural farmers and problems associated with the use of informal insurance measures in Odogbolu local government area, Ogun State, Nigeria. Russ J Agric Socio-Econ Sci. 2015;38(2):3-14.
7. Rahman M. Profitability and technical efficiency of mushroom production in selected areas of Bangladesh. [Doctoral dissertation]. Department of Agricultural Economics; c2018.
8. Sharma AN, Vaidya MK, Dixit B, Sood Y. Mushrooms' contribution to farm income and the socio-economic conditions analysis of the growers. Int J Environ Climate Change. 2021;11(12):466-473.
9. Shirur M, Shivalingewda N, Chandregowda M, Rana R. Entrepreneurial behavior and socio-economic analysis of mushroom growers in Karnataka. Indian J Agric Sci. 2018;87(6):840.
10. Singh G, Singh G. Constraints in adoption of recommended button mushroom cultivation techniques. Agric Update. 2017;12(3):351-356.