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Impact assessment of mushroom cultivation on livelihood of women mushroom growers of Samastipur District of Bihar

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Abstract

It has been observed that women have immense role for mushroom cultivation as women can easily inculcate the technology to grow mushroom. The study revealed that maximum (60%) of women had family income of Rs. 50,000- Rs. 80,000 per annum. Data on livelihood of women mushroom growers indicated that majority of respondents (68.34%) usually consumed balanced food at their home. 65 per cent respondents expressed that mushroom is good substitute as vegetable. 25 per cent respondents invested money in post office. 13.33 per cent of respondents invested their money for increasing their family status. The analysis of results indicated that education (0.665**), income (0.754**) and land holding (0.582**) were found to be significant with livelihood of mushroom growers at 1 per cent level of probability. In nutshell, it can be concluded that sustainability of mushroom cultivation practices will make economically empower the women and it will make women self-reliant and self-confident which will certainly improve the livelihood of the women.

Keywords: mushroom cultivation, women mushroom grower, livelihood

Introduction

Mushroom cultivation is an important activity contributing to the livelihood security of the nation. It has proved to be a part of sustainable agriculture as today mushroom farming is being practiced in more than 100 countries and the production is increasing annually. The sustainable rural livelihood implies that any developmental intervention for the rural people should be congruent with their existing livelihood strategies and ability to adopt. Mushroom cultivation being an indoor activity, labour intensive and high profit venture provides ample opportunities for gainful employment of small and marginal farm women, landless labours and unemployed youth in rural areas. The mushroom farm community is having long standing record as one of the earth resource turning the waste products of the agriculture commodities into a delicious nutritious food. Therefore, mushroom cultivation plays a vital role to meet nutritional and medicinal needs to reduce malnutrition and providing livelihood to the women mushroom growers. Mushroom cultivation has great scope in India and some developing countries because of cheap and easy availability of its raw materials. In Mushroom production women can play a vital role without sacrificing their household responsibilities (Bahl, 1984; Biswas *et al.*, 2012) ^[1, 2]. Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur has been pioneer in developing the technology for the year round cultivation of mushroom such as oyster, button and milky. A new variety of mushroom Rajendra Mushroom Dhudia-1 for summer season has been released by the Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur. The university has trained 14,000 farmers including 6000 women of different District of Bihar 2000 under graduate students from different university of Bihar and other State in mushroom production technology and about 350 farmers for spawn production technology. Majority of the mushroom growers (65%) grow mushroom approximately 10 kg/day. Hence, keeping in view these rational in mind the present study has been planned with the objective of assessing the impact of mushroom cultivation on livelihood of women mushroom growers.

Research Methodology

The study was conducted in Samastipur district of Bihar. Two blocks namely Pusa and Tajpur of identified District were selected for the study. Out of selected blocks four villages were purposely selected. A sample of 60 respondents *i.e.* 15 from each village selected with the help of snowball sampling technique. Data were collected using personal interview method with the help of structural interview schedule and thereafter, data were analysed.

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Result and Discussion

Socio- Economic Profile of Women Mushroom Growers

Analysis of data in (Table 1) indicated that a majority of the women mushroom growers (56.67%) were young aged (27-38 years) followed by 31.67 per cent and 11.66 per cent of middle age (39-49 years) and old aged (50-59 years) respectively. This findings supports the previous studied conducted by (Priyanka *et al.*, 2016), who had reported that the majority of the respondents belong to the age group of up to 30 years.

The data pertaining to the caste indicates that a majority of the respondents (65%) belonged to backward class followed by 31.66 per cent and 3.33 per cent were extremely backward class and general class respectively. Majority of the mushroom growers (91.67%) were married followed by

divorced respondents (8.33%). Whereas, no respondent was found to be unmarried.

The analysis of data revealed that majority of respondents (71.66%) belonged to the joint family followed by the nuclear family (28.33%). Further, it was indicated that 73.34 per cent of the respondents had small family size, while, 26.66 per cent of them had medium size of the family. The similar results found by Rachna *et al.* (2015)^[5].

It is evident from (Table-1) that 60 per cent of the women mushroom growers were getting low family income (Rs. 50,000- Rs. 80,000 per annum), 35 per cent had medium level family income (Rs. 90,000- Rs. 1,50,000 per annum) and remaining 5 per cent were getting very low family income (*i.e* below- Rs. 40,000 per annum).

Table 1: Socio- Economic Profile of Women Mushroom Growers

(n=60)

Sl. No.	Particulars	Categories	Frequency	Percentage
1.	Age	Young (28-38years)	34	56.67
		Middle (39-49 years)	19	31.67
		Old (50-59 years)	7	11.66
2.	Caste	Extremely backward class	19	31.66
		Backward class	39	65.00
		General	2	3.33
3.	Type of Family	Nuclear	17	28.33
		Joint	43	71.66
4.	Marital Status	Married	55	91.67
		Unmarried	-	-
		Widow	5	8.33
5.	Size of Family	Small (1-6)	44	73.34
		Medium (7-10)	16	26.66

Impact of Mushroom Cultivation on Livelihood of Women Mushroom Growers

The data on livelihood of women mushroom growers indicated that majority of the mushroom growers (65%) grow mushroom approximately 10 kg/day. Maximum of the respondents (65%) reported that mushroom is a good substitute of vegetables and remaining respondents (35%) expressed eat as good substitute of meat.

It is evident from (Table 2) that maximum of the respondents (68.34%) usually consumed balance food at their home and 31.66 per cent of the respondents could not eat balance food, which may be due to their financial position, lack of knowledge etc.

The data revealed that more than half of the respondents 68.33 per cent of women mushroom growers could not save their money regularly but only few growers (31.67%) saved their money for their future purpose.

The data pertaining to the investment indicated that maximum of the respondents (70%) could not invested their money and 30 per cent of the respondents made their investment in different investment institution especially in Post office (25%) and Bank (5%) for their future need.

Further, it was revealed that 13.33 per cent respondents invested their money for increasing their family income status followed by the respondents who were meeting their day to day activities (11.67%) and only 5 per cent respondents invested money for education of their children.

Table 2: Impact of Mushroom Cultivation on Livelihood of Women Mushroom Growers

(n=60)

Sl. No.	Particulars	Categories	Mushroom Production Trainees	
			Frequency	Percentage
1.	Mushroom Yield/day	Less than 10 Kg	39	65.00
		Above 10 Kg	21	35.00
2.	Mushroom as a Good substitute	Vegetable	39	65.00
		Meat	21	35.00
3.	Balance Food	Yes	41	68.34
		No	19	31.66
4.	Saving	Yes	19	31.67
		No	41	68.33
5.	Investment	Yes	18	30.00
		No	42	70.00
6.	Investment Institute	Post office	15	25.00
		Bank	3	5.00
		None	42	70.00
7.	Purpose of Investment	Increase the family status	8	13.33

		Meeting day to day activities	7	11.67
		Education of children	3	5.00
		No investment	42	70.00
8.	Family Income (Per annum)	Very low (Below Rs. 40,000)	3	5.00
		Low (Rs. 50,000- Rs. 80,000)	36	60.00
		Medium (Rs. 90,000-Rs. 1,50,000)	21	35.00

Coefficient of Correlation between Livelihood and Selected Independent Variables

The result of data in (Table 3) shows the correlation between dependent variable *i.e.* livelihood of women mushroom growers with the selected 15 independent variables. The analysis of results indicated that type of family (-0.259*) was found to be negatively significant at 5 per cent level. Whereas family education status (0.281*), training (0.293*) and

working hours (0.293*) were found to be positively significant at 5 per cent level of probability. The independent variables *i.e.* size of family (-0.383**) was found to be negatively significant at 1 per cent level of probability, whereas income (0.754**), land holding (0.582**) were found to be positively significant at 1 per cent level of probability.

Table 3: Co-efficient of Correlation between Livelihood and Selected Independent Variables (n=60)

Sl. No.	Independent variables	Livelihood
1.	Age	-0.179
2.	Education	0.665**
3.	Income	0.754**
4.	Occupation	-0.110
5.	Caste	0.077
6.	Type of Family	-0.259*
7.	Family Education Status	0.281*
8.	Size of Family	-0.383**
9.	Land Holding	0.582**
10.	Social Participation	-0.036
11.	Training	0.293*
12.	Source of Income	0.036
13.	Marital Status	-0.094
14.	Working Hours	0.293*
15.	Mushroom Production	0.149

**Significant at 1 % level of Probability

Conclusion

On the basis of the study it can be revealed that education (0.704**) and income (0.754**) was found to be highly significant with livelihood of the women mushroom growers at 1 per cent level of probability. On an average (60%) the growers were earning Rs. 50,000- Rs. 80,000 per annum, which highlighted that mushroom cultivation practices will economically empower the women mushroom growers and certainly make self-reliant and self-confident.

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