

OYSTER MUSHROOM CULTIVATION- A LOW COST ENTERPRISE ADOPTED BY TRIBAL ENTREPRENEURS TRAINED UNDER ASCI SCHEME OF MINISTRY OF MSDE, GOI

S. M. Chavan¹, C. D. Pandya², P. K. Modi³ and P. D. Verma⁴

1,2,3 & 4 Krishi Vigyan Kendra, Navsari Agricultural University, Vyara - 394650

Email : sachineto@gmail.com

ABSTRACT

India is primarily an agriculture based country and provides vast potential for the cultivation of mushrooms due to ample availability of raw materials and favorable climatic conditions. Mushroom production is simple, low cost and plays a significant role to alleviate poverty and generate employment opportunity for educated unemployed youth in rural and semi-urban areas. Agriculture Skill Council of India (ASCI) working under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE), upgrading skills of farmers, wage workers, self-employed & extension workers engaged in organized / unorganized segments of Agriculture & Allied Sectors. Under this project a skill development training programme of 200 hrs namely 'Mushroom Grower' had been allotted to KVK Tapi during 2018-19 with a total allocation of 1.65 lakhs. Total 20 tribal participants were actively participated. As per the guideline of MSDE, after completion of training, post monitoring and tracking of mushroom grower were also followed. 40% trained participants adopted this technology and commenced oyster mushroom production. Worth of 0.25 lakh to 4.00 lakh were earned by the entrepreneurs. By this way, Government Initiatives i.e. upgrading skills of farmers, wage workers and make them self-employed through ASCI scheme have been proved by uplifting the rural livelihood.

Keywords: oyster mushroom, ASCI, MSDE, enterprise

INTRODUCTION

Food and financial insecurity are prominent issues facing by the developing world (Higgins et al., 2017). India is concerned with poverty alleviation as it is lurking in urban, rural as well as in the tribal areas, because of unemployment, under employment and below sustenance level of living. Government of India is utilizing various means and methods to improve socio-economic status in multifaceted dimensions (Rao, 1999; Tripathi and Kaushik, 1999; Sivaprakasan and Kandaswamy, 1979; Chadha and Sharma, 1995).

India is primarily an agriculture based country due to diversity in soil and climatic conditions that allows a production of variety of crops in different parts of the country. This also provides vast potential for the cultivation of mushrooms due to ample availability of raw materials and favorable climatic conditions. FAO has recommended mushrooms as a food item contributing to protein nutrition of the developing countries. In a country like India, where vegetarians dominate, attempt should be made to popularize a vegetable protein source like mushroom documented by Bahl (2000). Mushroom growing has been appreciated as a technically feasible and profitable venture and widely

accepted by the researchers as a good venture for higher income, employment generation and rural development. However, mushroom growing can help in a long way in the efficient utilization of agricultural and industrial waste. Mushroom cultivation is a potential income generating agribusiness (Chang and Miles, 1990).

Mushroom production is simple, low cost and plays a significant role to alleviate poverty and generate employment opportunity for educated unemployed youth in rural and semi-urban areas. Extension trainings have been considered an outlet for exchange of concepts with in a community. Therefore, trainings have been widely accepted strategy with high returns on investment. There is an urgent need to impart technical knowledge to farm women and youth in order to adopt mushroom production as an income generating activity for enhancing their income.

OBJECTIVE

To study the impact of training programme under Agriculture Skill Council of India (ASCI) working under the aegis of Ministry of Skill Development and Entrepreneurship (MSDE)

METHODOLOGY

Agriculture Skill Council of India (ASCI) working under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE), works towards capacity building by bridging gaps and upgrading skills of farmers, wage workers, self-employed & extension workers engaged in organized / unorganized segments of Agriculture & Allied Sectors. ASCI under RKVY have been conducted various skill development training programmes through KVK, Research stations, State Agricultural Universities etc. Under this project a skill development training programme of 200 hrs namely ‘Mushroom Grower (small entrepreneur)’ had been allotted to KVK Tapi during 2018-19 with a total allocation of 1.65 lakhs. KVK Vyara had conducted the said training programme during 01/12/2018 to 27/12/2018. Total 20 participants were actively participated. All the entrepreneurs are farmers and with farming and dairy enterprise they are interested in mushroom cultivation. The course curriculum of 26 days was also prepared and different sessions as per course curriculum were conducted. Method demonstrations, film shows were also conducted. Session of discussion of success story of mushroom growers was also conducted. Demonstration unit of Mushroom cultivation

was also established at KVK, Vyara. We also upgrade this demonstration unit under this project. The kit consisting of mushroom spawn, sterilizing chemical-formalin, fungicide-Carbendazim, plastic bags were also supplied to each trainee. As per the guideline of MSDE, after completion of training, post monitoring and tracking of mushroom grower were also followed.

RESULTS AND DISCUSSION

During follow up study it was observed that 40% trainees had adopted mushroom cultivation technology and commenced oyster mushroom production. Out of them 88% trainees were tribal women. All the mushroom growers commenced mushroom cultivation on small scale based on the resources available. They have been used spawn with range of 5 kg to 70 kg per month with the cost of cultivation of Rs. 1750/= to Rs.24500/- per month. All the entrepreneurs are farmers and with farming and dairy enterprise they got an additional income of 0.25 lakh to 4.00 lakh were earned by the entrepreneurs (Table-1). These findings are in line with Bajpai et al. (2021). One of the entrepreneurs, Smt. Anjanaben Nileshbhai Gamit,

Table 1: Details of economics of mushroom production by the entrepreneurs trained under ASCI in Tapi district

Sr. No.	Name and address of entrepreneurs	Total spawn used/ (kg/month)	Total mushroom production (Kg/month)	Total cost of cultivation (₹/month)	Total Gross income (Kg/month)	Total Net Income (₹/month)
1	Anjanaben Gamit, At.Po.Nani Chikhali, Block Vyara	70 kg	300 kg	24500/-	60000/-	35500/-
2	Smt. Shantaben Gamit, Sadak Faliu,At: Po. Bedi, Ta. Songadh	20 kg	95 kg	7000/-	23750/-	16750/-
3	Kusuntaben Gamit, Sadak Faliu,Village: Bedi, Po. Vajharda, Ta. Songadh	10 kg	45 kg	3500	11250/-	7750/-
4	Ranjanben Gamit, Khristi Faliu, Village: Dolara, , Ta: Vyara	5 kg	20 kg	1750/-	4000/-	2250/-
5	Shilaben Chaudhari, Nanikundal faliu,Village: Borkhadi, Ta: Vyara	15 kg	75 kg	5500/-	18750/-	13250/-
6	Nirmalaben Chaudhari, Nanikundal faliu,Village: Borkhadi, Ta: Vyara	10 kg	40 kg	3500/-	10000/-	6500/-
7	Sunilbhai Gamit, Jalaram Mandir Faliu, Village: Ghodchit, Ta: Songadh	15 kg	60 kg	5500/-	15000/-	9500/-
8	Anandbhai Padvi, At.po. Dabriamba, Bl. Kukurmunda, Dist. Tapi	30 kg	120 kg	9000/-	21600/-	12600/-

Village: Nanichikhali, Block: Vyara, Dist: Tapi become a “Mushroom lady” of the district due to her efforts and success in the field of mushroom cultivation. Smt. Anjanaben is the first rural farm women who can successfully produce mushroom in South Gujarat especially in Tapi district.

During 2017-18, she started mushroom cultivation first time in October 2017 and harvest about 140 kg Mushroom with a value of ₹ 28000/- in a simple small low cost shed (Size 15’ x 10’) within 2.5 months by investing ₹ 11000 as production cost (Table 2)

Table 2: Details of expenditure and income from mushroom cultivation (2017-18)

Sr. No.	Cost of cultivation (₹)	Total Production (Kg)	Gross Income (₹)	Net Income (₹)
A	Non recurring expenditure			
1	Mushroom house (bamboo for making racks, gunny bags)	2500	140 kg 28000 (200/kg)	17000
2	Spray pump	2000		
3	Other miscellaneous exp. (tubs and drums)	600		
Total		5100		
B	Recurring expenditure (cost of raw material)			
1	Paddy straw	800		
2	Sugarcane Bagas	300		
3	Polythene bags (Rs.4 per bag)	420		
4	Spawn 24 kg (Rs.120/- per kg)	2880		
5	Formaline 5.2 lit (Rs.100/- per lit)	520		
6	Carbendazim 0.3 kg(Rs.600/- per kg)	180		
7	Other	800		
Total		5900		
Total Production cost (A+B)		11000		

Table 3: Details of expenditure for preparation of well designed *pucca* mushroom house (2018-19 and 2019-20)

Sr. No.	Particulars	Cost of cultivation (₹)		
		2018-19	2019-20	Total
1	Mushroom house	40000 (20'x30')	130000 (23'x80')	170000
2	Bamboos for preparation of side wall and racks	22000	13000	35000
3	Spray pumps, gunny bags	7000	3000	10000
4	Sprinkler/Fogger system	15000	16000	35000
5	Irrigation Tank with motor	7000	8000	15000
6	Tubs and drums and other miscellaneous	9000	2000	7000
Total (A)		1,00,000	172000	272000

This encouraging results motivated her to start mushroom cultivation on regular basis and design a structure (Size 30' x 20') based on one time expenditure of Rs.1,00,000/- (Table 3). From April 2018 to March 2019, she harvested total 1079 kg of mushroom with a value of ₹ 3,77,650/-(Table 3). She got prevailing market price of ₹ 350/- per kg. She was benefitted in a good way. By this way, she proved her dream true with the adoption of mushroom cultivation and enough to convey a message to secure livelihood in tribal areas without land /marginal land.

Anjanaben's success in mushroom production from October 2017 to March 2019 and 18 months experience in mushroom cultivation motivate herself to extend mushroom production unit. So, she enlarged his mushroom house (size of 23'x80') by investing additional ₹ 172000/- during 2019-20 (Table. 4). From April-2019 to December 2019, she used 250 kg spawn and produced 1234 kg of mushroom with a gross income of ₹ 3,08,500/- . Total cost of production was ₹ 88,350/-. By this way she get net profit of ₹ 2,20,150/- during 2019-20 (Table.5).

Table 4: Expenditure for upgrading mushroom house and economics of mushroom cultivation (Year 2018-19)

Sr. No.	Particulars with cost of cultivation (₹)		Total production (Kg.)	Gross income (₹)	Net income (₹)
1	Mushroom house	1,00,000	1079 kg	3,77,650.00 (Selling price @ ₹ 350/- per kg)	2,11,495.00
2	Paddy straw 6400 no.@ ₹ 3/-per no.	19,200			
3	Sugarcane Bagas 2.0 ton	5,000			
4	Polythene bags 1350 no@ ₹ 2 per bag	2,700			
5	Spawn (260 kg @ ₹ 120/- per kg)	31,200			
6	Formaline 50 lit @ ₹ 100/- per lit	5,000			
7	Carbendazim 4.0 kg @ ₹ 600/- per kg	2,400			
8	other miscellaneous expenditure	1,000			
	Total	1,66,500			

Table 5: Expenditure and economics of mushroom cultivation (2019-20)

Sr. No.	Particulars with cost of cultivation (₹)		Total production	Gross income (₹)	Net income (₹) within 19 months
1	Paddy straw 6000 nos @ ₹ 3/-per no.	18000	1234 kg	3,08,500.00 (Selling price @ ₹ 250/- per kg)	2,20,150.00
2	Sugarcane Bagas 2.0 ton	5000			
3	Wheat straw 1500 kg	1500			
4	Polythene bags 1000 no.@ ₹ 2 per bag	2000			
5	Spawn 250 kg @ ₹ 120/- per kg	30000			
6	Formaline 40 lit @ ₹ 100/- per lit	4000			
7	Carbendazim 4.0 kg @ ₹ 600/- per kg	2400			
8	Labour charges and other	25450			
	Total (B)	88350			

With the help of relatives, social contacts and based on demand she packed 100 to 200 gram packet and sold in Vyara town through Anganwadi worker, retail shopkeepers, and vegetable vendors. Consumers also have been booked mushroom on telephone. That approach makes marketing very easy. She also started mushroom selling from the “Organic market desk- selling organic produce from organic producer to direct consumer” commenced by Hon. Collector, Tapi district. Five to six unwaged youths also get employed through Anjanaben’s mushroom production unit. So, the trainees getting good income besides they were providing employment to their counterparts. Findings were supported by the Veena Shahi et al. (2018); Deshmukh (2021) and Shashi Kumar and Bindra (1994) while studying micro entrepreneurship development and women empowerment. Our findings also in line with the findings of Sanyogita (2021) revealed the impact of training on mushroom cultivation in income and employment generation among the women in Amravati District of Maharashtra. Earlier, Arora R.K. (2015) and Nagaraj et al., (2017) reported that the

vocational training had increased the knowledge of farmers, farm women and youths regarding all the subcomponents of mushroom production.

CONCLUSION

From the above finding it can be concluded that the mushroom cultivation is an easy and convenient technology for this area because huge availability of substrate (paddy straw) at local level for mushroom production. From this study it is observed that trainees trained under ASCI are gaining good economic return round the year. Thus, Government Initiatives i.e Agriculture Skill Council of India (ASCI) working under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE), proved their objectives to works towards capacity building by bridging gaps and upgrading skills of farmers, wage workers and make them self-employed through mushroom cultivation by uplifting the rural livelihood in Tapi district.

POLICY IMPLICATION

Government should implement such programmes which upgrades the skills of rural and unemployed youths and made them self-employed and self sufficient.

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CONFLICT OF INTEREST

There is no conflict between author.

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