



Economic Empowerment of Scheduled Caste Landless Rural Women through Mushroom Cultivation: A Case Study

Jogender Singh¹, V. P. Chahal², Anil Rathee³ and Kuldeep Singh⁴

^{1, 3 & 4}CCSHAU, KVK, Sonipat, Haryana, India

²Division of Agricultural Extension, ICAR, KAB-I, New Delhi, India

Corresponding author: jstomerv@rediffmail.com

Paper No.: 267

Received: 3 January 2015

Accepted: 2 November 2015

Abstract

Krishi Vigyan Kendra (KVK) Kurukshetra took up an initiative for economic empowerment of landless Scheduled Caste rural women by motivating them to adopt mushroom cultivation as an income generating activity. As part of this programme KVK has conducted three trainings for these landless Scheduled Caste rural women since 2008-09. In total 120 such ladies were trained over a period of three years. The trainees were provided practical training through method demonstrations on compost preparation, spawning and casing management practices, harvesting and packaging of button mushroom. The post-training evaluations of these 120 women from 12 villages showed that majority (>75%) of them gained low to medium level of knowledge on the vocation. These trained women had taken up white button mushroom cultivation in polythene bags during October to March every year. The economic empowerment of the landless Scheduled Caste rural women by way of mushroom production of KVK has created awareness regarding its cultivation among them. With technical back-up of the KVK, the adoption of mushroom cultivation by 25 percent of trained landless Scheduled Caste rural women has paved the way for their economic empowerment. A sense of belongingness, thus, has been created among these women towards mushroom farming. As many as 50% of them have found it is a good livelihood option for generating additional income for the family. In the coming years, mushroom farming by landless Scheduled Caste women in the district will become an integral part of socio-economic development process and a low cost self-help based exemplary model of economic empowerment. In order to sustain this model, the women opined that further convergence of different actors is essential for provisions of adequate micro-credit, assured market, family support, easy availability of pasteurized compost and casing material and facilities for value addition and processing of mushroom. There is one pasteurized compost and casing material making unit operational in Kurukshetra district.

Keywords: Mushroom and economic empowerment

Mushroom is highly nutritious food containing protein, iron, vitamins and salts ideally required for heart and diabetic patients. Further, with the increasing number of people refraining from non-vegetarian foods, mushroom serves as the best alternative because of its high nutritional and calorific constituents. Its farming is remunerative with quick return in a short span of time. It is grown on farm waste, require less land, provide income and work in lean period of October to March

when less agricultural operations are performed (Hari Om *et al.*, 2008).

In India 280 edible species are produced with production of 85000 metric tons (Kokate *et al.* 2010). Haryana state ranks third in mushroom production. The major mushroom producer districts in Haryana are Sonipat, Panipat and Kurukshetra.

More than 90 percent of rural women in India are unskilled. The work participation rate among scheduled

castes (SC) in India is about 25% only. Among main SC workers about 50 % are agricultural labourers and majority of them (>65 %) are rural women, (National Commission for Women, 1998). The landless SC rural women in Haryana State are also deprived of regular work opportunities. The situation of such women in Kurukshetra district of the State is not different. The major income activity of such women hinges around the agricultural work.

There is considerable potential for cultivation of white button mushroom in Kurukshetra District of Haryana, if scientific technology is adopted and provided to the farmers. Keeping in view, Krishi Vigyan Kendra Kurukshetra has organized more than 50 skills based training programmes in white button mushroom cultivation covering more than 1000 farmers and farm women. Subsequently, Krishi Vigyan Kendra (KVK) in Kurukshetra District of Haryana took up an initiative for economic empowerment of landless SC rural women by motivating them to adopt mushroom cultivation as an income generating activity and thus trained 40 women of different villages belonging to Self-help groups (SHGs) in the year 2008-09.

Database and Methodology

As part of Scheduled Caste (SC) development programme, the KVK, Kurukshetra has started providing vocational training on cultivation of button mushroom to 40 SC women each year since 2008-09. Since then 120 SC women of different villages belonging to Self Help Groups have been trained. The women were given practical training through method demonstrations on compost preparation, spawning, casing, management practices, harvesting and packaging of button mushroom. The post-training evaluations of 120 women from villages viz. Antehri, Yaari, Dhurala, Bodla, Dayal Nagar, Bhore Saidan, Sunaria, Ahmedpur, Sirsama, Sanghour and Muradnagar were conducted and their responses recorded on different aspects. No prior training was obtained by the respondents in mushroom cultivation. The post training analysis showed that there is increase in production and productivity of mushroom. Further, marketing skills gained in the training helped them in getting higher prices for mushroom with wider market reach and improved post harvesting skills and reduce post harvest losses. Group marketing with increased bargaining power with producers also adds on to their skills. The training need of the mushroom growing women has been operationalized as an expression of need for training in selected areas as felt by them in the study. It was measured in terms of the

expressed opinion of the respondents on three point continuum i.e. most needed, somewhat needed and least needed, the scores assigned were 3, 2, 1 respectively. The data so recorded was tabulated and analyzed with proper statistical tools.

Results and Discussions

The below presented table 1 shows that 37.5 percent of the respondents were below 30 years of age followed by middle and old aged. Further probing the data it was found that 32.5 percent of them are illiterate followed by can write name only. It was also found that they live in nuclear family and have up to four members in their family. Therefore, it can be concluded that majority of women are in young age group, illiterate, landless labours, living in nuclear family and belong to low income group.

Table 1: Profile of the respondents

N = 120			
Sl. No.	Attribute	Number	Percentage
1	Age		
	Upto 30 years	45	37.5
	31-50 years	57	47.5
	>50 years	18	15.0
2	Education		
	Illiterate	39	32.5
	Can write name only	32	26.7
	Primary	26	21.7
	Matric	19	15.8
	Graduate	04	03.3
3	Family Type		
	Joint	37	30.83
	Nuclear	83	69.17
4	Family Size		
	Upto 4 members	62	51.67
	> 4 members	58	48.33
5	Family Income/season		
	> ₹ 20,000	43	35.83
	₹ 20,000 to 50,000	61	50.83
	< ₹ 50,000	16	13.34
7	Social Participation		
	Members of SHGs	120	100.00
	Member of panchayat	04	3.33

Table 2: Motive to grow mushroom in groups

N = 120

Sl. No.	Reasons	Frequency	Percentage
1	To become economically independent	38	31.2
2	For recognition in family and society	28	23.3
3	For better future	102	85.0
4	To take advantage of government initiatives	82	68.3
5	To get loans	83	69.1

*multiple response found

The data presented in table 2 shows that the main motive of mushroom growers is to take cheaper loan (69.1 percent) and advantage of government schemes (68.3 percent), while some of them also expressed economic independence (31.2 percent) and recognition in society and family (23.3 percent) as their motive to grow mushroom in groups. The data presented in table 3 shows that 25 percent of trained women adopted mushroom cultivation in successive years and earned a handsome amount of profit from it.

Table 3: Year-wise adoption of mushroom cultivation in subsequent years

Sl. No.	Year	Participants	Participants continue mushroom growing in next year	Continue Percentage
1	2008-09	40	10	25.00
2	2009-10	40	11	27.50
3	2010-11	40	09	22.50

Table 5: Mushroom production and economic returns* of SHGs

N=120

Sl. No.	Name of SHG	Village	Pasteurized compost	Mushroom Production	Expenditure	Income	Net Profit (₹)	Net Profit/Member (₹)
			KG	KG		(₹)		
1	Ravi Dass (9)	Yaari	8550	1424	47955	71250	23295	2588.0
2	Ekta (12)	Antehri	11400	2166	71250	10830	37050	3087.5
3	Sant Ravi Dass (10)	Antehri	9000	2003	130195	63000	67195	6719.5
4	Jai Maa (11)	Dhurala	10450	1985	61610	97265	35655	3241.0
5	Hariom (10)	Dhurala	2850	527	17500	26350	9850	985.0
6	Bhole Nath (10)	Dhurala	2850	475	17300	23275	5975	597.5
7	Jai Santosi Maa (13)	Bodla	12285	2389	155269	85995	69274	5328.7
8	Sri Ganesh (7)	Dayal Nagar	6615	735	36750	40425	3675	525.0
9	Bhairav Baba (7)	Bhore Saidan	6615	1102	46305	71663	25358	3622.5
10	Sunaria (7)	Sunaria	6615	1029	46305	66885	20580	2940.0
11	Bala Sundri (6)	Ahmedpur	5670	9921	39690	694610	29750	4958.3
12	Ambedkar (7)	Sirsama	6615	1176	46305	83496	37191	5313.0
13	Kastoorba (7)	Sanghour	6615	956	46305	69788	23483	3354.7
14	Kali Maa (4)	Muradnagar	3780	588	26460	40572	14112	3528.0

Table 4: Gain in knowledge

N = 120

Sl. No.	Categories	Number	Participants
1	Low	21	17.50
2	Medium	69	57.50
3	High	30	25.00
	Total	120	100.00

It was found that majority of the participants gained low to medium level of knowledge on the vocation and opined for further training on some of the aspects of mushroom cultivation (Table 4). The low to medium level in knowledge gain shows that the participants are not fully trained and there is scope for skill up-gradation. The scores gained in different cultivation aspects were categorized in low, medium and high level of knowledge gain.

As a part of the programme each trainee-woman was given 85-105 bags of spawned pasteurized compost and casing material prepared by District Mushroom Growers Cooperative Society. Most of the women started mushroom production unit either in the house backyard by raising a thatched hut of bamboo and paddy straw or in their home itself as they do not own even a small piece of land. In order to provide continuous technical backup to the first time women mushroom growers, the KVK expert regularly visited units to guide and solve their problems on the site. With this intervention the landless SC rural women were able to produce up to 18 kg of button mushroom per 100 kg of pasteurized compost and earned ₹ 6719.5 and ₹ 525.0 per member highest and lowest, respectively during the season. The average cost of cultivation was found to be ₹ 25.0 per kg,

while the sale price of mushroom in the local market varied from ₹ 40-60/ kg. However, it is reported that sale price of mushroom went up to ₹ 100/kg, when production is low and demand is high due to marriages and other social functions in the area. The average price per kg of mushroom received is ₹ 50. The findings of Goyal (2006) are in conformity with the presented results.

Table 6: Perceived factors of success

Sl. No.	Factor	Rank
1	Husband	II
2	Family	I
3	Relatives	IX
4	Self confidence	III
5	Friends	X
6	Govt. officials including KVK	IV
7	Finance available	VIII
8	Easy availability of pasteurized compost	V
9	Marketing facility	VI
10	Government initiatives	VII

Table 7: Training needs

N= 120

Sl. No.	Technological Aspect	Mean score	Rank
1	Compost preparation	2.58	I
2	Casing mixture preparation	2.42	II
3	Management of environmental parameters (Temp./rh/Co)	2.33	III
4	Management of pest/diseases/ disorders	2.29	IV
5	Harvesting operation	1.63	VI
6	PHT (packaging etc.)	1.42	VII
7	Marketing intelligence/information	1.71	V

Average net profit of ₹ 3353.7 per member handsomely provides leverage to the SC women. Thus extra income resulted into increased expenditure on solely as per the wishes of women growers. This has resulted into improved living standard, better health care, increased expenditure on household durables and cloths.

The data presented in table 6 clearly indicated that family is the basic force behind their success and supportive behaviour of husband has also played an important role.

The data pertaining to the training needs of the mushroom growers presented in table 7. It shows that

they require further training on compost preparation followed by casing mixture preparation as these two operations are highly technical and the success of the unit heavily depends on it.

Conclusion

The post-training evaluations of 120 women from 12 villages showed that majority (>75%) of them gained low to medium level of knowledge on the vocation. These trained women had taken up white button mushroom cultivation in polythene bags during October to March every year. The economic empowerment of the landless SC rural women by way of mushroom production of KVK has created awareness regarding its cultivation among them. With technical back-up of the KVK, the adoption of mushroom cultivation by 25 percent of trained landless SC rural women has paved the way for their economic empowerment. A sense of belongingness, thus, has been created among these women towards mushroom farming. As many as 50% of them have found it is a good livelihood option for generating additional income for the family. In the coming years, mushroom farming by landless SC women in the district will become an integral part of socio-economic development process and a low cost self-help based exemplary model of economic empowerment.

References

- Goyal, S.P. 2006. Dissemination of Mushroom production technology. In: The challenges in agriculture development- role of KVKs. Directorate of Extension Education, CCSHAU, Hisar, India. p. 73.
- Hari Om, Chauhan R.S., Malik, R.K., Singh, V.P., Singh Dilbag, Lathwal, O.P., Goyal, S.P., Yadav, S.K., Sher singh and Malik, H.R. 2008. Diversification through Farming System Approach. Technical Bulletin (30), Krishi Vigyan Kendra, Kurukshetra and Directorate of Extension Education, CCSHAU, Hisar, India, p. 56.
- Kokate, K.D., Rathi Anil, Narula, A.M. and Keshava, 2010. Mushroom Farming. Zonal Project Directorate, Zone- 1, PAU Campus, Ludhiana-141004.
- Report on National Commission for Women, 1998. National Commission for Women, New Delhi, India.