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ORIGINAL ARTICLE

A significant role of Skill Development Training on Mushroom Cultivation in Loyola Degree College (YSRR) Pulivendula YSR Kadapa District of Andhra Pradesh

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ABSTRACT

Mushroom production is simple and low-cost and it helps to alleviate poverty and create job opportunities for educated unemployed youth in rural and semi-urban areas. The current study aimed to assess the impact of training on knowledge gain about mushroom production as a business/self-employment. The mushroom production training programme was designed for Loyola Degree College (YSRR) Graduate and Post-graduate students interested in self-employment. A total of 86 participants received in-depth instruction on various aspects of mushroom production in relation to cultivation techniques, preparation of spawn, substrate preparation, marketing of fresh product, preservation and value addition, etc. Pre and post evaluation testing was used to evaluate the training's effectiveness in terms of knowledge gains for several metrics. After training, it was found that 58.13, 47.67 and 44.18% of the trainees had different understanding of the different types of mushrooms, preservation methods and the significance of casing. Thus, it can be concluded that respondents' understanding of all the sub-components of mushroom production had raised as a result of exposure to training. Therefore, it can be said that after receiving training in mushroom production, learners were successful in learning new information.

Key Words: *Gaining Knowledge in Mushroom Cultivation, Entrepreneurs, Training.*

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INTRODUCTION

India is mainly an agricultural nation because of the variety of soil types and climatic conditions that allow for the development of a wide range of crops throughout the nation. Due to the abundance of raw materials and the ideal climate, there is also a significant potential for the growing of mushrooms [4]. Mushrooms have been suggested by FAO as a food that can improve the protein intake of poor nations [12]. In a nation like India, where vegetarianism is highly prevalent, an effort should be made to make a plant-based protein source like the mushroom described by Bahl more well known [13]. Growing mushrooms has been recognised as a technically viable and profitable business activity, and it is widely regarded as a beneficial initiative for increased income, job creation, and rural development by educators [4]. However, the appropriate use of industrial and agricultural waste can greatly benefit from mushroom cultivation [1]. Additionally, it can significantly reduce poverty and create job opportunities for educated

unemployed youth. Extension trainings are seen as a venue for thought exchange within a community [2]. As a result, trainings have gained popularity as a strategy with significant returns on investment. For young people to choose mushroom growing as a source of revenue for raising their income, it is vital that technical information be imparted to them [2]. In this regard, the Loyola Degree College (YSRR) Pulivendula-YSR Kadapa held 5 training sessions for youth in rural areas on various facets of mushroom production during the academic year 2021–22. Mushroom farming is easy, inexpensive and suited for rural settings [14]. It is labor-intensive and can create jobs in both semi-rural and rural areas. Production of mushrooms will enhance the socioeconomic standing of graduates, their families and address the job issues of both literate and uneducated people, particularly in rural areas [3]. The current study was conducted with the aim of evaluating the influence of training on knowledge about mushroom production as a business or self-employment, taking into consideration the rising demand for mushrooms as a result of globalisation and economic liberalization [3].

MATERIAL AND METHODS

Selection of Participants

Students and rural adolescents who were interested in self-employment were the main target audience for the training programme on mushroom production. The study was carried out at the Loyola Degree College in Pulivendula-YSR Kadapa. Five groups of 86 learners, including 29 men and 43 women, received training in mushroom farming.

Collection of Data

A questionnaire was created that included general information, participant backgrounds, land ownership, etc. To determine the participants' level of knowledge on growing methods, spawn preparation, substrate preparation, marketing of fresh product, preservation, value addition, etc., a pre-evaluation exam was administered. During the training programme, extensive training on a variety of elements of mushroom production was given. Similar to this, a post evaluation was carried out after the training course to evaluate the knowledge the learners had acquired and the efficiency of the training [7]. Ten questions covering topics such as mushroom cultivation, the nutrients found in mushrooms, various products made from mushrooms, storage and harvesting of mushrooms, etc. were used to assess the knowledge of the students [15, 17]. As a result, the trainees' deviation or knowledge gain was determined from the difference between their pre- and post-test results.

$$\text{Deviation/ Greater awareness} = \frac{\text{Post assessment result} - \text{Pre assessment result}}{\text{Total trainees}} \times 100$$

Preparation of Bedding

Materials used for mushroom spawn and cultivation included paddy straw, jowar seeds, polythene bags, cooking utensils and polythene sheets.

RESULTS AND DISCUSSION

Socio-economic profile

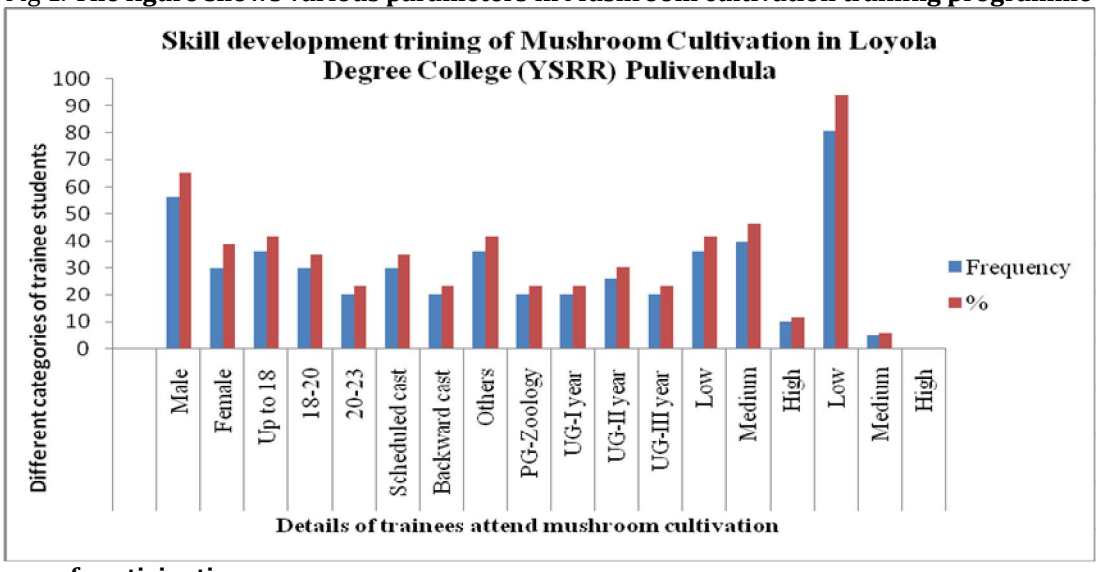
According to their level of education, occupation, ownership of land, and annual income, among other factors, the participants' socioeconomic position varied (Table 1). In accordance with the findings, 65.11 percent of % were men and 38.88 % were women. Between 18 and 23 years old was the range of participants' ages. The majority of participants (41.86%) were in the age range of 18, compared to 34.88 and 23.25 % of individuals who were under 20 and over 23, respectively. According to caste information, the majority of participants—41.86 percent—come from the others Caste, which is followed by the Backward Caste (23.25%). Studying up to the Post-graduation (23%) and UG-I years (23%) were the highest educational levels among the trainees, according to an assessment of their educational backgrounds. According to data on occupational backgrounds, 30% of participants were UG-II years, followed by 23 % of trainees UG-III Years. It was discovered that 65.11% of participants had low annual incomes, 23.25 percent had medium annual incomes and 11.62 percent had high annual incomes. In terms of experience producing mushrooms the majority of respondents (94.18%) had little to no experience, while 5.81 percent had some.

Table1. The socioeconomic makeup of the students that took the training in mushroom cultivation (n=86)

Particulars	Category	Frequency	%
Gender :	Male	56	65.11
	Female	30	38.88
Age :	Up to 18	36	41.86
	18-20	30	34.88
	20-23	20	23.25
Cast :	Scheduled cast	30	34.88
	Backward cast	20	23.25
	Others	36	41.86
Education :	PG-Zoology	20	23.25
	UG-I year	20	23.25
	UG-II year	26	30.23
	UG-III year	20	23.25
Annual income of parents:	Low	56	65.11
	Medium	20	23.25
	High	10	11.62
Mushroom production experience:	Low	81	94.18
	Medium	05	05.81
	High	00	0.0

As a result, landless trainees were found to be interested in adopting this business to augment their family's income. The socioeconomic elements that affected the mushroom farming industry's adoption were inconsistent with one another [11]. When it comes to the adoption of mushroom farming, age is not a big factor [16].

Fig 1. **The figure shows various parameters in Mushroom cultivation training programme**



Reasons of participation

The elements that the participants felt were most important were provided to them to rank in order of significance. According to Table-2, 52.32 percent of respondents enrolled in the training programme to pursue mushroom farming as a profession, 23.25 percent wanted to learn how to cultivate mushrooms for their own consumption and 13.95 percent enrolled in the programme to share their knowledge with other people. Kaur also reported similar outcomes (2016). It was clear that the majority of participants enrolled in the training programme with the intention of starting a mushroom farming business[5].

Knowledge enhancement:

For each of the components that make up mushroom production, pre-exposure and post-exposure scores were calculated. In the pre-evaluation test, the knowledge levels of the participants ranged from 17.44% for mushroom types to 61.62% regarding mushroom recipes. The post-training evaluation scores for different practises ranged from 68.60% for spawn generation to 88.37% for the significance of casing. For all the parts of the training programme, it was found that the pre-training knowledge score was not very adequate. However, participants' knowledge score increased following training, and it was more satisfied overall. The following sub-components of mushroom production showed a sufficient increase in knowledge: nutritional value, ideal growing conditions, types of mushrooms, suitable substrate, significance of casing, production of high-quality spawn, harvesting procedures, marketing channels, preservation methods, and mushroom recipes. After training, it was found that 47.67% of respondents had different knowledge of different varieties of mushrooms, while 48.83% of trainees had different knowledge of different preservation methods. After training, however, 38.37 percent of the respondents still had misconceptions about the significance of casing in the production of mushrooms. In contrast, 58.13, 48.83 and 47.67% of the trainees showed deviations in their understanding of substrate appropriateness, ideal growing conditions, and marketing channels, which was proven to be the case for 58.13 percent of the trainees following training. Therefore, it can be said that respondents who were exposed to training on mushroom production were successful in learning new information. The findings were consistent with those made by Rachna et al. [10], Nagaraj *et al.,* [8] and Kaur [5] that training boosted the knowledge of farmers, farm women, and young people. It is therefore possible to conclude that exposure to training had improved knowledge of all the minor aspects of mushroom production [9]. The participants' strong curiosity and well-rounded educational backgrounds may be the causes of their acceptable knowledge growth [6].

Trainees Recommendations for improving of Cultivation

Table 4 lists the trainees' recommendations for further enhancing the training programme. The majority of responders (87.20%) believed that excellent spawn might be available in due course. In addition, 63.95 % of respondents believed that the government should offer financial assistance for mushroom cultivation, 56.97 % aid they needed help connecting with marketing channels, and 40.69 % said they expected more exposure time at a successful entrepreneur's farm during the training course.

Table2. Reasons of participation in training programme in mushroom cultivation (n=86)

Reason	Frequency	%	Ranking
To establish mushroom-growing as a business :	45	52.32	I
To become knowledgeable about mushroom cultivation methods for personal use :	20	23.25	II
To instruct the pupils on mushroom cultivation :	12	13.95	III
Want to learn about cultivating mushrooms :	09	10.46	IV

Table3. Observed for more information about various components in the following training (n=86)

Parameter	Pre-training (%)	Post-training (%)	Change In knowledge
Nutritional worth	48(55.81)	73(84.88)	25 (29.06)
Optimal growth environment	31(36.04)	68(79.06)	37(43.02)
Varieties of mushrooms	18(20.93)	59(68.60)	41(47.67)
Suitable foundation	31(36.04)	69(80.23)	38(44.18)
Mushrooms spawn	15(17.44)	65(75.58)	50(58.13)
Broad marketing avenues for mushrooms	42(48.83)	75(87.20)	33(38.37)
Procedures for preservation	28(32.55)	70(81.39)	42(48.83)
The value of casing	30(34.88)	71(82.55)	41(47.67)
Harvesting techniques	27(31.39)	65(75.58)	38(44.18)
Recipes for mushrooms	53(61.62)	76(88.37)	23(26.74)

Table 4. Following training, trainees' recommendations for enhancing the mushroom business (n=86)

Proposals	Frequency	%	Ranking
Quality spawn will be delivered on schedule.	75	87.20	I
Assistance with obtaining financing from banks	55	63.95	II
A connection to marketing channels	49	56.97	III
Visit to a farm where successful businesses are exposed	35	40.69	IV
A practical guide to growing mushrooms will be made available.	29	33.72	V
Value enhancement	19	22.09	VI

CONCLUSION

The study's findings show that after exposure to training, respondents were successful in increasing their knowledge. Even landless farmers can earn extra money through mushroom farming because it is a business where a lack of land is not a major obstacle. Education and instruction about the cultivation of mushrooms contributed to the creation of money, the supplementing of nutrients, and successful marketing.

FUTURE SCOPE

Mushroom cultivation is an emerging source of income for many agripreneurs in India, with the top producers being the United States, China, Italy, and the Netherlands. Mushrooms are becoming extremely prevalent in the pharmaceutical industry as a result of their medicinal properties and high prices. The profit potential varies tremendously from mushroom to mushroom. However, the average profit from a kilo of mushrooms can be estimated to be between Rs. 300 and Rs. 350, with the grower typically offsetting costs of between Rs. 100 and Rs. 150. This results in a profit of about Rs. 200 per kilo, though it might be significantly greater for international kinds like shiitake and Portobello.

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