

Potential of Improving Rural Livelihood through Mushroom Production: A Case Study of Kamburupitiya Ekamuthu Bimmal Samajaya.

DTPS Dharmawardhana^{1*}, LM Abeywickrama¹, SGY Aravinda¹ and PSH Pelpola¹

¹Department of Agricultural Economics and Extension, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka

Abstract

Improving rural livelihood through small scale enterprises has been practicing in Sri Lanka from early ages. However performance of such activities varies depending on the activities and the location. Mushrooms can be grown as a small scale enterprise in rural areas as it involves with a short production period, low inputs and low space. Main objectives of this study are to identify the present status of mushroom production, its effects on the livelihood of the producers and to find the problems related to the mushroom production. The study was done in Kamburupitiya Divisional Secretariat of Matara District. All the members of "Kamburupitiya Ekamuthu Bimmal Samajaya" (sample size=37) were interviewed using a structured questionnaire. In addition to the questionnaire survey, direct observations and discussions with relevant stakeholders were made for further information. The descriptive statistical tools and the Wilcoxon Sign Ranked Test were employed to analyze the data. The study revealed that the major problems were difficulty of obtaining reliable seeds in time (76%), problem of quality raw materials (saw dust) (57%), quality of other inputs (43%), unavailability of advisory or extension services (41%), problem of finance when required to replace the fixed items (37%) and technical know-how to face some of the emerging new pests and diseases (33%). Among the social aspects, support from the spouse, support from family members, their living standard and social relationships significantly increased the activities of mushroom production. The study concludes that there is a potential to improve the mushroom industry in the area as there is a growing market.

Keywords: Mushroom cultivation, Rural livelihood

***Corresponding author:** thusharadharmawardhana@gmail.

Introduction

Mushroom cultivation is emerging as one of infant industries especially in rural areas of Sri Lanka (Gunatilake, 1999). The Sri Lankan mushroom industry consists of firms engaged in processing, marketing and distributing of mushroom. In the 1980s, the Export Development Board and Department of Agriculture of Sri Lanka made efforts to develop the mushroom cultivation towards export standards. Common mushroom types grown in Sri Lanka are Abalone, Button and Oyster mushrooms.

At present, mushroom cultivation has become popular among the farmers as a profitable cottage industry. Their scale of production varies from a few hundred grams to over 50 kg/day. The pricing of mushrooms depends on the cost of raw materials and their locations. Most of the unorganized growers engage in this enterprise as a way of extra income earning and mainly cater to the local market. Well trained and reliable labour determines the success of a mushroom business. The research and development by the Department of Agriculture, Export Development Board and the government support have helped enormously to develop this industry in Sri Lanka. Lack of guidance, financial problems in initiation and expansions, high cost of inputs, labour cost, lack of proper storing

facilities, lack of proper cold room facilities and inadequate knowledge in packaging are the major problems in mushroom industry (Ranathunge *et al.*, 2010).

Main objectives of this study are (1) to identify the present status of mushroom production, (2) to find improvement of livelihood of the producers and (3) to find the problems related to the mushroom production in rural sector.

Materials and Methods

The case study was conducted in the "Ekamuthu Bimmal Samajaya" in Kamburupitiya Divisional Secretariat of Matara district. A large number of families involve in the mushroom cultivation as a cottage industry and they have established the association for marketing aspects. All the members (37) in this association were interviewed using a structured questionnaire. Focus group discussions, informal discussions with selected government officers and farmers and direct observations were made to gather information in addition to the questionnaire based survey. To find the changes of livelihood and social aspects of the families, the Wilcoxon Sign ranked Test was employed as the changes were measured in the scale of -2 to +2 representing highly reduced (-2) and highly improved (+2).

Results and Discussion

The study revealed that out of the several problems faced by the mushroom growers in the area, the major problem was the difficulty of obtaining reliable seeds in time (76%). They normally buy seeds from Peradeniya, Matale, Galle, Horana and Thelijjawila spending time and money that lead to increased cost of production. Also problem of quality raw materials (saw dust) (57%), quality of other inputs (43%), unavailability of advisory or extension service (41%), problem of finance when required to replace the fixed items (37%) and technical know-how to face some of the emerging new pests and diseases (33%) were the other common problems faced by the growers. No one face the problem of marketing implying that there is a potential to expand the industry to cater the growing demand.

Also they lack extension services to obtain new knowledge. The main organizations that farmers have links with, for training and obtaining seeds and other relevant information were the Export Development Board, Department of Agriculture, and Vidatha Centers operated under the Ministry of Science & Technology. They did not have direct links with researchers or training institutions that conduct training programmes in mushroom cultivation, packaging or business management. The number of growers involved in value added products of mushroom was low (30%). They sell the product on the day of harvesting at low prices. It was revealed that, in the market, there is a higher demand for mushroom as a vegetarian protein source although the producers cannot cater the demand.

Under social aspects, selected criteria were measured in five point scale (-2, -1, 0, +1, +2) using the questionnaire. The study revealed that support from the spouse, support from family members, their living standard and social relationship increased significantly compared to the past (Table 1) with the involvement of mushroom production. Also the harmony within the family and among the families has been increased by sharing the product and the knowledge among the neighbors. Also, the mushroom growers are becoming important member in the society compared to the past as they are playing a significant role in the society. Sharing the knowledge and group marketing strategies has significantly increased within their social status.

With the industry, mutual support, recognition within the family and children's education have somewhat increased. They could support to their children for their education with the

Table1: Improvement of social aspects

Criteria	Mean score	'Z' value*
1. Additional income	0.72	6.73*
2. Mutual support from the spouse	1.12	7.53*
3. Recognition within the family	1.07	7.12*
4. Improvement of living standard	0.97	6.79*
5. Support from family members	1.23	9.12*
6. Social recognition	0.86	6.11*
7. Child education and interest	0.64	5.56*
8. Mutual support	0.63	5.12*
9. Social relationships	0.57	4.33*
10. Future expectations	0.52	4.16*

*Significant according to the Wilcoxon Sign Ranked Test ($\alpha=0.05$)

additional income and additional time spending with the children compared to labour jobs away from the home. Now they have a good recognition within the family, especially for women, as women were involving in this industry in their leisure time.

Conclusions

Absence of the reliable sources of seeds in time is the main obstacle of the mushroom industry. Problem of quality raw materials and unavailability of advisory or extension service are the common problems encountered by the farmers. There is a potential to improve the mushroom industry in the area as there is a potential and growing market. The improvement of social aspects of the families of the mushroom growers is significant implying that this industry can be popularized compared to several other cottage industries. Introducing a mechanism for providing quality seeds and raw materials through institutional involvement, many of the problems face by the growers can be solved.

References

- Central Bank of Sri Lanka 2013. Economic and Social Statistics of Sri Lanka. [online] Available at: <http://www.cbsl.gov.lk/htm/english/10_pub/p_2.html> [Accessed on 17 July 2015].
- Gunatilake R 1999. Integrated Rural Development Programme: Lessons learnt, Technical Report, Ministry of Finance, Colombo.
- Ranathunge PRMPD, Rankothge C, and Wickremasinghe SI 2010. Small and Medium Mushroom Enterprise in Sri Lanka: a Case Study on the Innovation System Involved in Sri Lanka: National Science Foundation. [Online] Available at : <thakshana.nsf.ac.lk//na314.pdf> [Accessed on 31 July 2015].