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Small-Scale Mushroom Cultivation for Additional Income Generation

In India, mostly farmers are with small and marginal holding. To improve their agricultural productivity and income generation, crop diversification is required. Mushroom cultivation as an enterprise has the potentiality to generate additional income. Sri Hariom Prasad Jaiswal, a farmer of Begusarai district started small scale mushroom cultivation along with his traditional agricultural practice. He generated an additional income of Rs. 19,000.00/- in a season from mushroom production along with his regular income from traditional farming. Considering limited land with farmers, mushroom cultivation could be a promising option for supplementary income generation for small-holding farmers.

INTRODUCTION

The development of rural areas depends on the rural economy which mostly is agriculture-based. Agriculture is seasonal and depends upon weather conditions. There is hardly any land left for further cultivation of more crops. Most farmers are small-holding farmers and they have to generate more income from available resources with them for their economic growth. For the development of the rural economy, improvement in agricultural productivity through diversification will be crucial. To generate more income, the transformation of farming from a subsistence approach to an innovative and commercial approach is required.

PROPOSED SOLUTION

Mushroom is a popular food due to its special flavor, nutritional value and medicinal properties. Mushrooms are a rich source of protein,

vitamins, and minerals (Qumio *et al.*, 1990). Mushroom cultivation can directly improve livelihood through economic, nutritional and medicinal contributions (Marshall and Nair, 2009). Mushroom cultivation can help reduce vulnerability to poverty and strengthens livelihoods through the generation of a fast yielding and nutritious source of food and a reliable source of income (Rachna *et al.*, 2013). Mushrooms can be grown in a room by racking vertically on locally available substrate material without any requirement of extra land. In a short time with low technology and little investment mushroom cultivation can be done (Easin *et al.*, 2017). Mushroom cultivation will improve the socio-economic condition of farmers and solve the employment problems of rural areas. Promotion of mushroom cultivation can relieve pressure on land, increase food and nutritional security and uplift the status of the farmer through earning additional income (Shahi *et al.*, 2018).

The total production of mushrooms in Bihar is more than 2000 tonnes and it is increasing at a very fast rate. Oyster, as well as Button mushroom, offers good potential for its cultivation in Bihar because of its sub-

tropical nature (Shahi *et al.*, 2018). The technology involved in mushroom cultivation is very simple and can be acquired by any person after a short training. Many farmers of the Begusarai district got training on the Mushroom production technique from Krishi Vigyan Kendra, Khodawandpur, Begusarai and started its production.

Sri Hariom Prasad Jaiswal, a resident of Muzaffara village in Birpur block of Begusarai district, is a small-holding farmer with a 0.32-acre area of arable land. Agriculture is his main occupation; he and his family solely depend upon agricultural produce for livelihood. Sri Hariom is practicing agriculture for 15 years. He mainly grows maize, wheat and vegetable crops. His annual income from traditional cultivation was around Rs. 27,000.00/- only. He started small scale mushroom cultivation after the training from KVK, Begusarai in the year 2019. He started with oyster mushroom in which he has to invest less capital and little management was needed. He used his two storage rooms of dimension 10*10*5 feet each, which were unutilized. He kept 60 bags of mushrooms in these two rooms after properly cleaning and

Table 1. Income generated from different components taken by Sri Hariom Prasad Jaiswal

Sl.No.	Component	Expenditure (Rs.)	Income (Rs.)
1	Maize	5000	9500
2	Wheat	4000	9000
3	Vegetables	3500	8000
4	Mushroom	2500	19000



Figure 1. Farmer Sri Hariom Prasad Jaiswal along with his small-scale mushroom unit



Figure 2. Oyster mushroom grown by farmer Sri Hariom Prasad Jaiswal

sanitizing the rooms (Figure 1 and 2). His total expenditure to install the setup was around Rupees 2500/- only. This expenditure cost includes the cost of spawn, straw, bags, rubber, chemicals and miscellaneous expenditure to produce in one season. He harvested the mushrooms in three flushes, which gave him production of around 2 Kg per bag. For selling of these mushrooms, he made packets of 250 gms and fixed the price Rs. 40/- for 250 gms. In the local market, he started selling the mushrooms by describing its benefits as food.

Villagers also had shown interest in buying the mushrooms because of its taste and benefits over several other vegetables. A farmer with a small-holding of land has generated an additional income of around Rs. 19,000.00/- only from small scale mushroom cultivation in one season. Income from mushroom production was an additional income for Sri Hariom Prasad Jaiswal along with income from other crops which has allowed him to rise from subsistence level (Table, 1).

CONCLUSION

Mushroom cultivation can help reduce vulnerability to poverty and strengthens livelihood. For small-holding farmers with limited land, crop diversification and small rural enterprises can be a promising solution for additional income generation. Small-scale mushroom cultivation as a rural enterprise can be adopted by farmers to generate additional income with limited resources and less capital. Regardless of age and gender, mushroom cultivation can be done by any

individual. It is a woman-friendly profession. Women can utilize their spare time for mushroom cultivation without sacrificing their household responsibilities. Awareness about the nutritional value of mushroom as a substitute for vegetables and a source of income generation will help rural people to adopt mushroom cultivation as a rural enterprise.

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