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Mushroom Cultivation as a Viable Income Generating Unit for Livelihood Security: A Success Story of ARYA Project at Turkaulia Block of East Champaran

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

To make agriculture sustainable, the price of agricultural commodities must be sufficient but variations in price may occur depending on market demand. So, by adopting mushroom production at rural level farmers may minimize the price gap by price of their mushrooms and ultimately people get good quality of mushroom and mushroom based products like pickle at rural level. This sets good example and also increases extra income from the agriculture at rural level by youth.

Keywords: Mushroom; rural youth; livelihood; income.

1. INTRODUCTION

East Champaran district of Bihar, India has population of more than five million with approximately 55.79% literacy rate with about 65% youth population. In the East Champaran district, people are engaged in agriculture, allied sector, auto mobile sectors etc. There is population of about seven thousand in Madhopur village of Turkaulia block. Most of the people of this village are engaged in farming. Crops mostly grown are rice & pigeon pea during *Kharif* season while wheat, maize, lentil and vegetables in *Rabi* season and earning money mainly from selling agricultural products directly to the local market [1,2]. Processing and value addition of agricultural commodities are helpful in increasing the income of the farming community. Balance between men and women in society can be achieved only when both the sides are considered equal [3,4]. Hence, ignoring the role of women especially in a developing state like Bihar cannot bring development in real senses. It is alarming that the growth and rates of productivity have declined for overall period for most of the crops except wheat, arhar, oil seeds and potato in recent years due to high demand of nutrients, imbalance fertilizer use, low use of organic fertilizers especially Vermicompost, farm yard manures etc in the district [4,5]. This is somewhat matter of great concern, when all efforts are towards increasing yields with the help of implementation of new cultivation technologies [6]. Farmer's income can be doubled by socio-technical interventions with the approach of increasing production and productivity and reducing cost of cultivation, reducing cost of human labour through mechanization, better grading and packaging of produce, promoting local level processing with better drying and [7]. It is needed to processing and value addition of agricultural commodities are required to be developed to push the pace of diversification with a view to raise the income of farming community. Exposure to training may increase the knowledge of farmers, farm women and youths regarding techniques mushroom production [8].

2. PROFILE OF YOUTH

Group of 15 uneducated and unemployed rural youths in Madhopur village created enterprise and started Mushroom cultivation in the village.

3. INTERVENTIONS: SCIENTIFIC CULTIVATION OF MUSHROOM AT MADHOPUR VILLAGE

The objective of the group was to establish an enterprise for income generation through Mushroom cultivation and its value addition to achieve nutritional stability at village level for consumers.

4. INPUT/SUPPORTS PROVIDED TO YOUTH/GROUP

The group of rural youth gets benefited by the interventions as facilitated by Krishi Vigyan Kendra, Piprakothi, East Champaran like trainings, demonstration, farm advisory service for Button, Oyster and Milky mushroom production, value addition and marketing of these products under ARYA project. The spawn of mushroom, chemical, net bags, polythene bags and other accessories were provided among 15 rural youths of Madhopur Hari village for this enterprise under ARYA project.

5. PROGRESS MADE

The group of youths approached the Krishi Vigyan Kendra, Piprakothi, East Champaran to get the training on Mushroom cultivation and they underwent three consecutive trainings at KVK, Piprakothi. Their family was engaged in cultivation of Wheat and Rice crop, due to less income by this cropping system, they started mushroom cultivation along with agricultural crops. The group followed scientific techniques for mushroom and spawns production as

suggested by scientists of the KVK during trainings. Currently mushroom production unit is workings smoothly. Monthly, an average of 300 kg fresh mushroom is produced and directly sold in to the Madhopur Hari Village Market and adjacent village's market as well. The group members are doing their best for producing quality milk-mushroom with support of KVK Piprakothi using logo of "ARYA logo" it's marketing. In this village, most of the farmers are growing rice and wheat; hence the straw is easily available for mushroom cultivation. Apart from this people are getting higher price of rice and wheat straw from selling it to this enterprise, earlier they had to burn this straw that leads to major cause of air pollution in area.

Fig. 1. Mushroom production unit run by woman- youth and family members of Madhopur village of Turkaulia block under ARYA project

6. BENEFITS TO FARMERS

Farmers are receiving good prize for mushroom and it's value added products by selling it to different enterprises. They also reduced storage and handling cost for surplus straw and sell their products to consumers and this enable increase of extra income.

7. CONSTRAINTS FACED BY THE GROUP

The group faced constraints like first time marketing of fresh mushroom and its different products. Summer season becomes a challenge to the farmers to keep moist the mushroom production unit.

8. PERCEPTION OF OTHERS IN THE VILLAGE

People of Madhopur village are engaged with farming along with animal husbandry. They are happy with starting of mushroom production unit because of good demand of fresh mushroom and its value added products during festive and marriage seasons. So farmers are a happy with getting good prices of their products. Consumers are satisfied with the superior quality of fresh mushroom and its other products.

9. CONCLUSION

From the findings it may be concluded that mushroom production through scientific and technical support of KVKs may raise the extra income of the rural youths and farm women.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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