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# **Supplementing income of marginal and landless through mushroom production**

## **A Success Story**

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# Mushroom Production

## 1. Situation analysis/Problem statement

Mushroom is a highly remunerative enterprise and its cultivation is of recent origin in Jammu and Kashmir State. The annual mushroom production in Jammu region of J&K State is around 6000 quintals. Kathua district is the gateway of J&K in the extreme south of the state. It lies between 32° 17' to 32° 55' North Latitude and 75° 70' to 76° 16' East Latitude. The climate of the district varies widely from subtropical to temperate, which offers huge potential for growing different varieties of mushroom round the year. There is abundant availability of natural resources and agro wastes which are quite suitable for setting up of mushroom units in the district and cultivation of mushroom offers easy and economic conversion of this waste.



Almost 70% of the people of Kathua district belong to the category of small and marginal farmers and landless labourers. Traditionally, district Kathua was known to be the producer of Paddy, Wheat and Maize. In spite of growing Paddy-Wheat and Maize on small holdings, the income of the farmers has been declining as a result of rising cost of cultivation. Thus, the income levels of majority of the marginal and small holders are getting low for a sustainable livelihood. There is a complete absence of on-farm employment for a considerable period of time during the year. Moreover, the lack of resources and knowledge about the use of agro waste in mushroom production kept the farmers dependent mainly on the traditional crops for their livelihood. In order to raise their family income, mushroom cultivation emerged to be an effective alternative source of income generation.

Mushroom cultivation is therefore offers a profit making technology to the marginal and landless farmers which holds the promise to rejuvenate their sinking economic condition. Any type of land can be used for construction of the mushroom house for crop raising. Farmers recognise the importance of cultivation of mushroom throughout the year as an additional income for higher returns. A significant number of farmers approached Krishi Vigyan Kendra- Kathua for proper guidance. Earlier, apart from the routine agriculture the farmers of the area used to grow only small quantity of white button mushroom which was a seasonal activity.

## 2. Plan, Implement and Support

Krishi Vigyan Kendra Kathua recognising the value of mushroom production in uplifting the economy of marginal, small and landless farmers, provided mushroom production a central place in its Annual Action Plans. All types of extension methods have been adopted for enhancing the adoption of mushroom production by the farmers of the district. Some of the major activities undertaken by KVK Kathua as per the approved plans are being depicted in Figure 1.



**Figure 1: Plan, Implementation & Support to farmers**

KVK Kathua conducted number of activities such as trainings to the farmers, farm women, rural youth and skill development programmes, refresher courses for the extension functionaries for taking the skill development on mushroom to the larger dimensions. Demonstrations/On Farm Trials were also conducted at farmers' locations in order to provide hands on experience to the farmers. KVK also organised various activities such as mushroom day/field day and exposure visit to promote mushroom production activities and to motivate the youth/farmer for establishment of low cost mushroom production units for large scale adoption.



**Visit of youths to KVK's mushroom unit**



**Mushroom production unit of a trainee**



**Celebrating Mushroom Day**



**Women involvement in Mushroom production**



**Associate Director (KVKs) inspecting mushroom unit**



**Director ATARI interacting with KVK's mushroom entrepreneur**

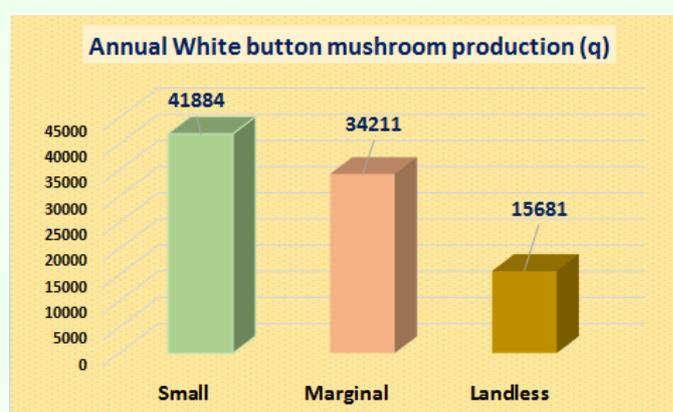
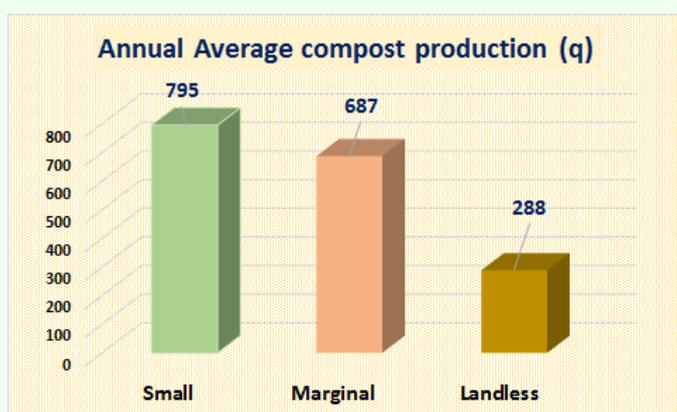
Exposure visits were also conducted to gain practical knowledge about mushroom cultivation and to prepare the farmers of the area to produce three different types of mushrooms. Besides this, extension activities such as Farmer Scientist interactions, film shows, Radio talks, distribution of literature and frequent media coverage were also carried to get the maximum impact.

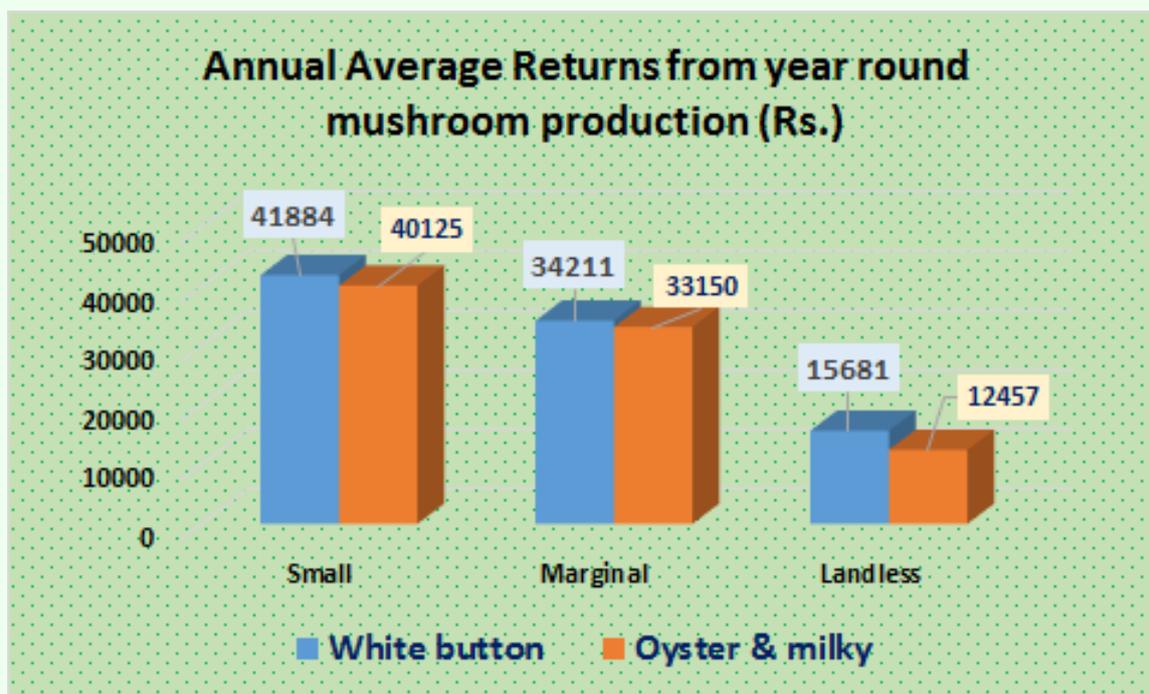
## Output

The farmers of the district were encouraged to grow white button and oyster mushroom during the month of September to March and milky mushroom during the month of June to August to supplement their family income. The adoption of mushroom production has shift the economy of farm households through shifts in income and generation of employment. The data were collected from 22 mushroom growers of the district, who are successfully running the enterprise of year round mushroom production with the intervention of Krishi Vigyan Kendra Kathua. Out of the 22 respondents, 8 belong to small, 5 belong to marginal and 9 belong to the category of landless growers. The growers are continuously being engaged in the production of year round mushroom production including white button, milky and oyster. The economics of white button mushroom has been presented in Table 1. Thus, 22 growers have been able to earn annually an amount of **Rs. 39,05,181.00 (Rupees Thirty nine lakh five thousand one hundred and eighty one only)** with an average of Rs. 1,77,508/- per grower (Figure 2).

**Table 1: Economics of White button mushroom in Kathua district**

PARTICULARS	Small (08)	Marginal (05)	Landless (09)
Annual Average compost production (q)	112	98	38
Annual Average mushroom production (q)	795	687	288
Average Gross income from mushroom (@ Rs. 97 per kg)	73140	63204	26496
Average cost (Rs.)	31256	28993	10815
<b>Net Returns</b>	<b>41884</b>	<b>34211</b>	<b>15681</b>
<b>Input-Output ratio</b>	<b>2.34</b>	<b>2.18</b>	<b>2.45</b>
<b>B.C Ratio</b>	<b>1.34</b>	<b>1.18</b>	<b>1.45</b>





**Figure 2: Annual average returns from mushroom production**

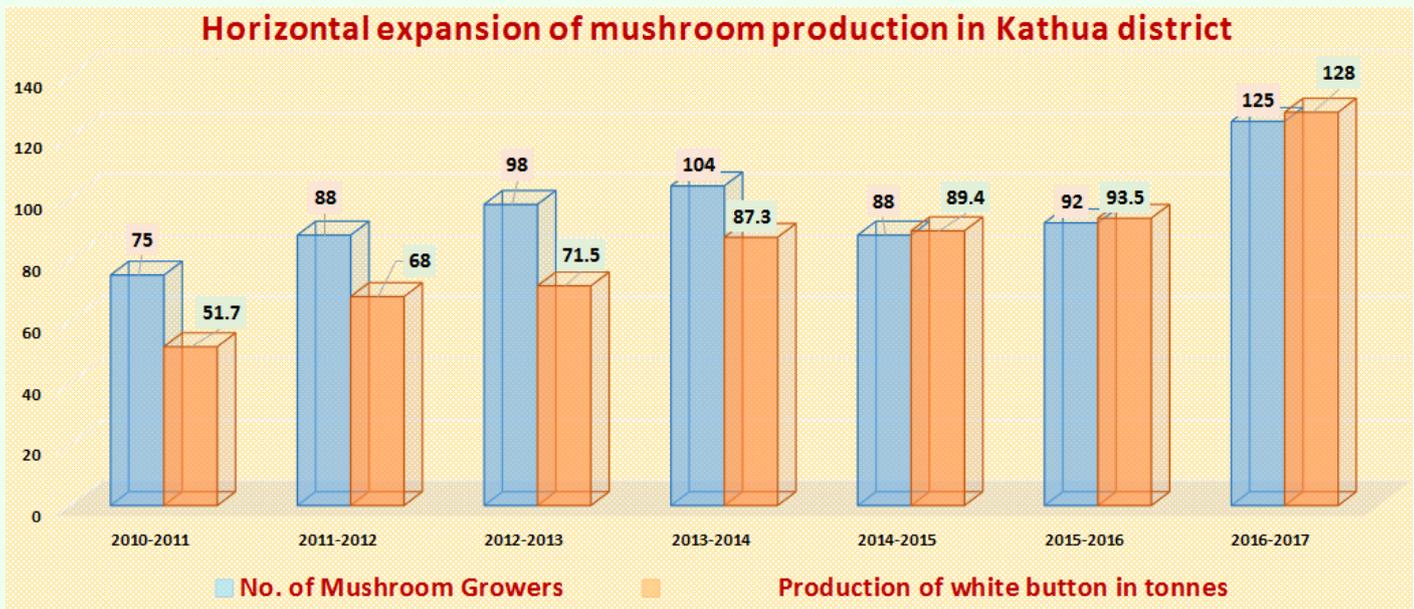
### 3. Outcome and Impact

With the technical intervention/guidance of KVK-Kathua, the year round cultivation of mushroom has been popularised in most of the villages in the district.

#### Horizontal Expansion of mushroom production

The Front Line Demonstrations conducted by KVK have resulted in a stimulating effect in motivating the farmers of the district in adoption of mushroom production as a supplementary source of income. KVK Kathua could able to make an exceptional impact in improving the livelihood status of farming community of the area through proven relevant interventions in the field of mushroom production. The success of mushroom production also encourages other farmers, farm women, rural youth of the area to grow mushroom successfully and profitability. The data revealed that there has been a sizeable increase in the annual production of mushroom in the district from merely 517 q in 2010-2011 to 1280 qt. in 2016-2017. In the year 2017 numbers of mushroom grower increased subsequently, after the initiation of programmes of KVK Kathua. During the year 2010-2011, seventy five (75) beneficiaries were covered under different activities conducted by Krishi Vigyan Kendra Kathua but in the subsequent years their number rose to 125 till 2017. The

subsequent increase in productivity as well as the numbers of mushroom growers triggered the adoption of mushroom cultivation as a remunerative enterprise by the small, marginal and landless farmers in Kathua district, as depicted in Figure 3.



**Figure 3: Outcome of KVK Kathua in respect of mushroom production**

The benefits of growing and selling mushroom have enabled farmers to buy agriculture inputs, household goods, pay school fees of their wards. The farmers have invested in expanding their mushroom production by establishing low cost mushroom production unit. The movement initiated by KVK, Kathua for popularising mushroom production in Kathua district, has yielded results in the form of increased number of farmers taking up mushroom cultivation as a major income generating activity. The extension methodologies of KVK Kathua in this regard paved the way for transforming the mushroom cultivation from a state of rare commodity in Kathua district into a commodity of trade.

### **Economic Empowerment of Farm Women**

KVK Kathua has planned to ensure participation of women in mushroom production activities through the provision of training programmes and formation of groups, thus ensuring the economic empowerment and maintenance of nutritional status of farm families (Figure 3).



Figure 3. Women empowerment through mushroom production

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**Mushroom cultivation training concludes**

*A KVK official giving demonstration to participants at Kathua.*

**■ OUR CORRESPONDENT**  
 KATHUA. A specialised training programme on year round mushroom cultivation organized by Krishi Vigyan Kendra (KVK), Kathua under the aegis of Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu and auspices of Directorate of Extension, SKUAST-J concluded on Monday. Unemployed rural youth including school drop outs participated were imparted three days training in the programme. At the valedictory, participants shared their experiences and lauded the exemplary efforts made by KVK, Kathua for exposing them to such a potent area of self employment and livelihood generation. SMS (Agronomy) Dr. A. P. Singh, SMS Agroforestry Dr. Vishal Mahajan, SMS Agril. Extension Dr. Brijesh Ajrawat and SMS Horticulture Dr. Neeraj Sharma also added to the training programme. Programme Coordinator KVK, Kathua, Dr. Anurish Vaid spelled out the contents of training programme and stressed upon the participant to extend mushroom cultivation round the year, earlier it was called a seasonal activity. Subject Matter Specialist (Plant Protection), Dr. Anamika Jambwal deliberated upon the preparation of compost for button mushroom, explaining various procedures and methods involved in successful cultivation of button, oyster and milky mushroom. During the training practical demonstrations on various production aspects were conducted to acquaint the participants while working on the principle of learning by doing. Participants were also taken to the site in the KVK premises where the milky mushroom were growing and were shown various value addition options in case of surplus produce.

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 dnesday, 5 March 2014 www.ouniabkeshari.in

**महिलाओं को मशरूम की खेती के प्रति किया जागरूक**  
**कृषि विज्ञान केंद्र व नाबार्ड द्वारा आयोजित प्रशिक्षण शिविर सम्पन्न**

गुप्त लीडर की भूमिका पर प्रकाश डाला व समूहों द्वारा आयोजित की गई गतिविधियों का खाता तैयार करने की भी जानकारी दी। उन्होंने विभिन्न ऋण योजनाओं की जानकारी देकर बैंक से संपर्क स्थापित कर ऋण हासिल करने की भी जानकारी दी। कार्यक्रम के दौरान कृषि विज्ञान केंद्र के समन्वयक डा. अमरीश वैद्य ने महिलाओं को उत्थान में स्वयं सहायता समूहों के योगदान की जानकारी दी। उन्होंने कहा कि शिविर में हासिल की गई जानकारी को इस्तेमाल कर महिलाएं स्वयं को आर्थिक रूप से मजबूत बना सकती हैं। इस अवसर पर डा. सचिन गुप्ता, डा. बुजेश अजरावत, निर्मला देवी आदि उपस्थित थे। इस मौके पर मशरूम की खेती से संबंधी प्रचार सामग्री, स्पान्स, प्लास्टिक बैग भी वितरित किए गए।

मशरूम उत्पादन प्रशिक्षण शिविर में उपस्थित सैल्फ हेल्प ग्रुप सदस्य व पदाधिकारी। (राज)

कटुआ, 4 मार्च (हरजिन्द्र): सैल्फ हेल्प ग्रुपों को मशरूम की खेती के प्रति जागरूक करने हेतु आयोजित प्रशिक्षण शिविर मंगलवार को सम्पन्न हो गया। कृषि विज्ञान केंद्र द्वारा नाबार्ड के सहयोग से हीरानगर ब्लॉक के चंगी गांव में आयोजित प्रशिक्षण शिविर में महिलाओं को मशरूम की खेती के प्रति जागरूक किया गया और कई बारीकियों से अवगत कराया गया। कार्यक्रम में डी.डी.एम. नाबार्ड अमन कलसोजा ने ग्रामीण विकास में स्वयं सहायता समूहों की भूमिका पर चर्चा की। उन्होंने स्वयं सहायता समूह के

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