Oyster Mushroom Cultivation : A Profitable Enterprise - A Case Study

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1. **Name of the Enterprise/Practice/Technology:** Oyster Mushroom Cultivation

2. **Name and address of the farmer:**
   Maa Majhigouri SHG
   Village - Gadiakhalla
   GP - Gadiakhalla
   Block - Gunupur
   Dist – Rayagada

3. **Initial Status:**
   Mushroom cultivation in Rayagada district is negligible during last few years although there is a rising trend in its demand. In comparison to other districts of Orissa, mushroom production is quite low and is mostly procured by the method of collection from nearby forest areas which is limited to specific period of a year. The climate of Rayagada district is very much congenial for cultivation of various types of mushroom more or less throughout the year. Almost 70% people of Rayagada district belongs to the category of small and marginal farmers and landless labourers. Their income level is quite low for a sustained livelihood. In order to raise their family income mushroom cultivation was considered to be an alternative source of income generating actively through SHG members.

   Gadiakhalla, a village in Gunupur block of Rayagada district is situated at a distance of 6kms from the KVK, Rayagada. The village comprises 231 households amounting to population of about 1156 number. Among them 30% are SC, 20% ST and remaining are of OBC and General Castes. About 82% of the women population are landless agricultural labourers. Usually the month of Oct-Feb are lean periods for rainfed agriculture and hence the farm women were encouraged to grow Oyster mushroom through SHG during this period to supplement their family income.

4. **KVK intervention:** Mushroom is grown out of agriculture waste. Use of such waste for mushroom production is a better and profitable ecofriendly way of waste disposal. The technology involved in mushroom cultivation is very simple and can be acquired by any person after a short
training. Mushroom growing as a cottage industry is quite valid for the SHG women due to its low capital investment and high yields obtained even under controlled rural condition. The awareness for mushroom has been created among the general consuming public. Mushroom are good supplement for protein lacking diet and can be easily cultivated indoors and marketed profitably. Keeping in view the above fact, FLD on oyster mushroom cultivation was organized in the village Gadiakhalla.

5. **Innovative extension approach:**
KVK, Rayagada introduced the FLD on oyster mushroom cultivation in the village Gadiakhalla, GP-Gadiakhalla of Gunupur block. Similarly training programme on oyster mushroom cultivation was organized for SHG members. Necessary technical literature was provided to the farmers, field day was arranged to create awareness and interest among the farmers for mushroom cultivation. KVK is instrumental is imparting training to the farmers and farm women.

6. **Details of the technology:**
Raw material requirement:
(i) Paddy straw
(ii) Polythene bags
(iii) Spawn

**Soaking:**

- Cutting of straw into 2 to 2.5” size
- Soaking in clean cold water for 12-16 hrs
- Draining excess water

**Pasteurization of the straw pieces in boiled water at temp. 70-80°C for 45 minutes to 1 hr.**

- Draining of excess water & dry in shade to get 65% moisture.

**Laying of bed & spawning:**

- Filling in the polythene bag (65cm X 35cm) with sterilized straw bits (6” ht)
- Sprinkling of ¼ part of spawn over it at the periphery only.
- Again covering with sterilized straw pieces to another 6” ht.
- Repeat spreading of straw pieces and spawn for 4th time.

- Covering the top layer with thin layer of straw & tie the polythene bag at the top & making 20 to 25 holes for exchange of gas & keeping it in dark room.

**Spawn running:**

- Removing the polythene cover after 16th day.
- Arranging the beds on the sika, leaving a space of 6” between the bed.
- Sprinkling of water twice a day as per the weather to keep the bed moist.
Harvesting:

Harvesting fresh mushrooms after 7 days by twisting carefully when the edges start upward curling.

1st flush – 1 kg
7 days after 2nd flush – 250 gm.

7 days after 3rd flush – 250 gm

Marketing of fresh mushroom.

7. Adoption of the technology and benefit to the farmer:

Inspired by the easy method of cultivation, good yield and economy of production and being exposed to extension interventions made by KVK, Maa Majhi Gouri SHG’s member have started practicing oyster mushroom. Cultivation in small scale under the guidance of scientists of KVK. As a result the beneficiaries of SHG group could harvest 120 kg mushroom from 100 beds and generate profit of about Rs.4000/- within a month by selling mushroom in the nearby market at the rate of Rs.50/- per kg. The success of mushroom production not only encourages other three SHGs of the adopted village but also women of neighbouring villages to grow mushroom successfully and profitably.

9. Farmers’ reaction and feedback:

The farm women of the village Gadiakhalla were surprised with the success of mushroom cultivation. They could not just believe such a good amount of net profit in less than a month period. Now they are interested to take up mushroom cultivation as a major income generating activity throughout the year due to its heavy demand in Gunupur area.

10. Extent of diffusion effect of the newly adopted technology:

The net profit in mushroom cultivation has attracted the other three SHG (Maa Mangala, Maa Radharani, Maa Bhairabi) for practicing the mushroom cultivation in small scale. People of neighbouring villages are now enthusiastic in producing mushroom in large scale. Different NGO’s in Rayagada district decided to replicate this successful programme in different blocks of the district. KVK is instrumental in imparting technical support in this regard.

11. Follow-up action:

KVK, Rayagada has documented the success and has developed plan to promote this technology. KVK has planned for further expansion of technology in Rayagada. Apart from this KVK printed literature TV coverage of the technology has been organized for wider dissemination of the technology.

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