

MUSHROOM CULTIVATION -TOWARDS INCOME GENERATION AND SOCIO-ECONOMIC STATUS IMPROVEMENT FOR SELF HELP GROUPS (SHGS) AND RURAL UN-EMPLOYED FARMERS

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ABSTRACT

Long back in the Year 2012-13 the initiative of making mushroom a priority, meeting both financial burden as well as innovative agri-practice had already begun in the Hili Block of Dakshin Dinajpur. A farmer struggling with routine agriculture processes was shown this path drawing his interest to the utmost, and with his willingness and departmental support this idea has proved itself to be a sustainable as well as profitable one. He started with a small unit at the beginning in the month of December 2012 and earned huge profit. Gradually in the year 2014-15 with his expertise in the market demand, he started making pickles made of mushroom which was largely consumed in market. Continuing the practice he made his own spawn unit in the 2015-16, which reduced the cost of production to a greater extent resulting in larger profit margin. Now he earns about 25,000.00 per month. He has set an example for all those interested farmers nearby, and now mushroom cultivation is a common part of their agri-business. Further in the year 2016-17 the idea was implemented in Mal Block, Jalpaiguri where especially unemployed women and SHG has become a part and parcel of the success stories. It has been observed that investing a mere amount of Rs. 10000/- for production enabled them to make a total sale of Rs. 20000-21000/-(approx.) This high margin of profit attracted several such interested groups as well as individuals to follow and implement the model. In the year 2017-18 the same has also been started by Matiali, Nagrakata Block of Jalpaiguri District, which yielded superb results too.

INTRODUCTION

In today's hectic world of social modernization the food habit of the people is taking a sharp turn towards junk, spicy foods and preservatives and consequently they are making way for some deadly non-communicable diseases to be an inseparable part of their lives. That's why we can see a spurt of disease such as diabetes, hypertension, cancer etc. It seems that there is no way people can get rid of this riddle. Considering the socio-economic status that we presently have and it is high time that we think of an alternative in the form of mushroom that is easily available, digestible and rather cheap. Mushroom is known as the meat of vegetable world due to its nutritional value. And that's where I am going to focus on.

Nutritional Value per 100 g:

Energy: 94 KJ (22 kcal), Carbohydrate: 4.3 g, Fat: 0.1 g, Protein: 2.5 g

Vitamins: Thiamin (B₁), Riboflavin (B₂), Niacin (B₃), Pantothenic acid (B₅), Pyridoxin (B₆), Folic acid (B₉), Vitamin C

Minerals: Calcium- 18 mg, Iron-0.4mg, Magnesium-9 mg, Manganese-0.142 mg, Phosphorus- 120mg, Zinc- 1.1 mg, Sodium- 6 mg, Selenium- 26 mcg, Copper- 0.5 mg.

Type:

Oyster mushroom (*Pleurotus* spp.): The *Pleurotus* mushroom is generally referred to as Oyster Mushroom' or 'Dhingri' in India.

Objectives:

- Effective measure to fight against unemployment-long term solution especially for SHGs & rural un-employed Women.
- Profitable agribusiness with minimum but efficient efforts giving path to easier income generation.

INSTITUTIONAL

INVOLVEMENT/INTERVENTION

The actual knowledge was getting from the farmers end and using the technical knowhow and improving it day by day.

MODEL (A)**Fixed cost:**

Sl. No.	Particulars	No. or Quantity	Rate (Rs)	Amount (Rs)
1.	Cost of Shed 25' X 12'=300 sqft. Side height 10ft., middle height 12ft. To accommodate 300 cylinders	1	40/ Sqft.	12,000/-
2.	Straw immersion Tank with platform in all 4 side of 3ft. Projection (4ftx4ftx3ft)=48 or 50 cuft)	1	Rs.40/ Cuft	2,000/-
3.	Pump Set	1	2,500/-	2,500/-
4.	Sprayer	1	1,000/-	1,000/-
5.	Chaff Cutter	1	400/-	400/-
6.	Bamboo for platform	30	70/-	2,100/-
			Total	20,000/-

(Rupees Twenty thousand only)

Recurring cost of 300 cylinder Mushroom for 45 days:

Sl. No.	Particulars	No. Or Quantity	Rate (Rs)	Amount (Rs)
1.	Paddy Straw (80cm x dia 40com) @2Kg per bag	450 kg	6.00	2,700.00
2.	Spawn @ 200g per bag	300 Nos.	12.00	3,600.00
3.	Polythene Bag	300 Nos.	1.50	450.00
4.	Misc like-CaCO ₃ , Net, Plastic rope, Bleaching Powder, Formalin, Neem Oil (10,000 ppm)		LS	1,000.00
			Total	7,750.00

(Rupees Seven Thousand Seven Hundred fifty only)

Total Cost= Fixed Cost + Recurring Cost=Rs. 20,000.00 + Rs. 7,750.00= Rs. 27,750.00 for Model A**MODEL (B)**

Considering practicality, some parts of fixed cost may be exempted in most cases as pump-set, sprayer, chaff cutter are common items which are available with farmers in most cases. So those costs can

be cut off. And as far as shed is concerned, any place remaining unused or verandahs available in house can also be used as a shed just after some minor modifications by spending a minimum capital in its repairing.

Fixed cost:

Sl. No.	Particulars	No. or Quantity	Rate (Rs)	Amount (Rs)
1.	Cost of Shed (Repairing Only)	-	-	3,000/-
2.	Bamboo for platform	20	70/-	1,400/-
3.	Other miscellaneous expenses	-	-	600/-
			Total	5,000/-

(Rupees Five thousand only)

Recurring cost of 300 cylinder Mushroom for 45 days:

Sl. No.	Particulars	No. Or Quantity	Rate (Rs)	Amount (Rs)
1.	Paddy Straw (80cm x dia 40com) @2Kg per bag	450 kg	6.00	2,700.00
2.	Spawn @ 200g per bag	300 Nos.	12.00	3,600.00
3.	Polythene Bag	300 Nos.	1.50	450.00
4.	Misc like-CaCO ₃ , Net, Plastic rope, Bleaching Powder, Formalin, Neem Oil (10,000 ppm)		LS	1,000.00
			Total	7,750.00

(Rupees Seven Thousand Seven Hundred fifty only)

Total Cost= Fixed Cost + Recurring Cost=Rs. 5,000.00 + Rs. 7,750.00= Rs. 12,750.00 for Model B

- Guidance by skilled Technical support by trained professionals such as ATM/BTM/KPS as well as experienced individuals who have in-hand experience of the project.
- Plant Protection:
 - i) 20-24 hrs soaking of paddy straw (For Fungal Disease) - 30g CaCO₃:01 kg paddy straw dipped in water.
 - ii) Formalin for disinfection (Container must be clean with formalin @4 drops/litre of water)
 - iii) Sterilization (For Fungal Disease) – over Water Steam.
 - iv) Insect - After harvest of fresh mushroom spray Neem Oil (10000 ppm) @ 5ml per litre of water to the cylinder.

WHY SHGs & rural un-employed Women?

- No need of extra land.
- No requirement of huge capital to start the job.
- No need of huge manpower.
- No need of intense hard work and tough labour.

SUCCESS POINT/RESULTS

In order to extend the benefits of this innovative activity which becomes more encouraging when we get practical evidences of the final outcomes, we are gradually spreading the scope of endeavour through demonstration camps as well regular education discussing detailed procedural steps. Production in the blocks of Mal, Nagrakata and Matiali are already successfully running and has been greatly successful in yielding benefits to the SHGs/farmers.

Name	Address	Contact No.	Investment	No. Of cylinder	Total production (in Kg)	Gross Income (Rs.)	Net Income (Rs.)	Cost : Benefit
Smt. Lipika Roy	Neolabasti	9733424675	1000.00	50	55	6,600.00	5,600.00	1:5.6
Karobi Roy	Pachim Dalaigaon	7551885077	1150.00	65	30	3000.00	1850.00	1:1.8
Dinomani roy	Neolabasti	973338778	2000.00	100	80	8000.00	6000.00	1:3
Depali Roy	Golabari	7548986442	2000.00	100	85	5500.00	3500.00	1:3.5
Jyotsna Roy	Golabari	-	2000.00	100	85	5500.00	3500.00	1:3.5
Madhabi Roy	Paschim Dolaigaon	9547467921	1300.00	50	40	3000.00	1700.00	1:1.7
Sangi SC Group	Neolabasti	9733424675	2000.00	100	80	8000.00	6000.00	1:3
Swapna Roy	Neolabasti	9493652668	1200.00	50	30 Contd...	2500.00		
Bondhu Tirkey	Barodighi	-	7000.00	280	140 contd...	14000.00		
Ajay Dhanwar	Saily TG	7864871593	2500.00	145	45 contd...	4800.00		

OUTCOME/EXTENSION ASPECTS

Till date this project has not only been a mission but also become a passion of SHGs/farmers because of its success which is crystal clear from the example of production in Hili Block, Dakshin Dinajpur since 2012. Though its spread may seem upto a limited area which we are gradually increasing in every possible nook and corner of the needy and interested sections of society making them aware of its nutritional value which is the main reason why there had been great demand of the product. This is clearly visible in the diversified production and end use of mushroom as vegetable as well as in pickle factories. Blocks of Jalpaiguri district like Jalpaiguri Sadar as well as in

Maynaguri has implemented the same witnessing the success of Nagrakata and Matiali Block, and the project is under process there and we are very confident about its success in these areas too. With time and our hard work we are moving towards the success of our objective in multiple ways. In one hand we are giving an affordable way to unemployed women/SHGs/farmers to earn livelihood, on the other hand providing a natural nutritious diet contributing towards a healthier society. With time we have been successful in showing ample progress in our objective by setting examples of many successful Block which can surely draw the interest of our peers.

This agenda has also been appreciated by MIC, Agriculture in a recent state level presentation delivered by me at the IBRAD, KOLKATA held on 5th July 2017 where he insisted upon greater extension of efforts in the matter. After listening to the success stories and various examples he also suggested the department to include Mushroom cultivation in the state plan and has assured of such activity to be implemented in near future.

So we all have to come and join hands together with the common people to impart the education and deliver the best from our side to make their work a success. Its only when we are able to bring smile in the face of a farmer, their lies the success of our department.



Fig. 1. Glimpses of training and extension activities

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