MBM-CARI-IV

Oyster Mushroom Cultivation

Rationale

Mushrooms are called 'white vegetables' or 'boneless vegetarian meat' containing 20-35% protein (dry weight) which is higher than those of vegetables and fruits and is of superior quality. It is considered ideal for patients of hypertension and diabetics. Oyster mushrooms *(Pleurotus* species) can be grown on variety of crop refuses, saw dust, bagasse (a waste product from sugar mill), sludge (a waste from paper pulp mill) etc. Processing of agro-waste in to valuable protein rich food reduces the environmental pollution and its byproduct as spent mushroom is also a good source for making compost, manure, soil conditioner and can be used as feed for animal and fish. Paddy straw and banana leaves are available in these Islands which can be effectively utilized as substrate (growing medium) for mushroom cultivation.

Oyster mushroom cultivation as cottage industry has ample scope in the A& N Islands. For round the year cultivation the agro-climatic conditions are very conducive with modest temperature (25-30^0 C) and relative humidity (70-90 %). Most of the mushrooms for consumption are imported from mainland India. There is huge demand of canned, dried and fresh mushrooms and the farmers can get handsome price from sale of fresh (Rs. 100/ Kg) and dried (Rs.500-700/kg) oyster mushroom. There is great demand of fresh mushroom in local market for consumption of tourist in hotels. Apart from fresh consumption of mushrooms it can be exported as organic brand in dried form.

A micro business module with commercial viability has been prepared keeping in view the agro-climatic conditions, raw material, market and other related aspects for successful cultivation of the mushroom to generate employment and income to the farmers.

Technical detail

The main requirements are thatched house/ cropping room, bamboo/ wooden racks with shelves, substrate (paddy straw/ banana leaves), spawn, plastic bags (60 x 45 cm), chaff cutter, water boiling drum, wire cage, trays, sprayer and pesticides.

Cropping Room

		Measurement		Area ($m^{2)}$
Room	:	6m x 5m x 1 Nos.	=	30 m^2
Racks	:	2m x 1m x 2m x 4Nos	=	16 m^2

Input required & Source availability

Input	Source of Availability
Substrate (paddy straw/ banana leaves)	Farmers/ Local purchase
Spawn (seed of mushroom)	Spawn producing private organization/Department of Agriculture/ CARI
Poly bags, punch machine, chaff cutter, sprayer, pesticides, water boiling drum, wire cage	Local market shop
Fire wood or any other energy source for boiling the water	Local purchase / house hold materials

Flow chart, Time schedule & Cash Inflow

Construction of cropping room/ thatched house with bamboo racks	2 months	Invest Rs. 28000
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Cost input involve in mushroom cultivation	Four crops in a year (2 months for one crop)	Invest Rs. 31000

*Total investment in 12 months : Rs. 59000

Cash Inflow

S.No.	Activities	Amount (Rs)
1.	**One time investment**	
	Thatched house	20000.00
	Bamboo racks	20000.00
	Drum	1000.00
	Chaff cutter	5000.00
2.	**Cost input involve in mushroom cultivation**	
	Cost of paddy straw (20 quintals @ Rs. 200/q) for 5 crop in a year	4000.00
	Cost of spawn (2% wet substrate) @ Rs. 20/bottle	6000.00
	Polythene bags, pesticides, wood, water etc	3000.00
	Labour charges including harvesting and marketing@ Rs.100/- (180 man days)	18000.00
	Total	**59000.00**

2. Livestock component : 100 m^2

Species	No.	Area (m^2)
Milch cow	3	21
Bullock	2	9
Backyard poultry	60	20
Goat	11	20

Cash Outflow

Gross Returns from Mushroom Cultivation (from five crops / year)

Year	Particulars	Amount (Rs.)
I	Sale of mushroom 800 kg @ Rs 100/ kg	80000.00

Net Returns (Rs.)

Particulars	Gross returns (Rs.)	Cost (Rs)	Net returns (Rs)*
Net income from I year	80000	59000	21000
Net income from II year onwards	80000	31000	49000

Please Note : The income may vary depending upon type of substrate used and other management practices.

Market Linkage: Sale of mushrooms in the local market, hotels & vegetable co- operative society