

PROJECT PROFILE

ON

CULTIVATION OF BUTTON MUSHROOMS (TINY SCALE FOR WOMEN SHG)

Month & Year
Aug 2010

**PREPARED BY
TANSTIA-FNF SERVICE CENTRE
B-22, INDUSTRIAL ESTATE
CHENNAI-600032**

Supported by

Friedrich Naumann
STIFTUNG **FÜR DIE FREIHEIT**

CULTIVATION OF BUTTON MUSHROOMS (TINY SCALE FOR WOMEN SHG)

1. Introduction

Button mushrooms are an edible non toxic fungus. They are considered a delicacy in the continental variety of dishes. They make good ingredients in soups and substitutes for chicken meat. They are cooked with vegetables or meat or cooked and consumed per se. The mushrooms have a good demand in urban towns and cities and in all restaurants serving Pizzas, Chinese and Continental dishes. The mushroom soup in particular is very popular.

2. Market

The major market outlets are the “ A” class stores in major towns and cities. Button mushrooms in frozen state are accepted in all restaurants preparing Chinese, Continental and Western dishes. Fast food restaurants and Pizza makers also buy mushrooms.

3. Packaging

Button mushrooms are packed in polypropylene bags.

4. Production capacity

- The plant will be in operation for one shift a day.
- The production capacity is estimated at cultivating 25 kilograms of the mushroom per day.
- The yield of mushrooms will be between 7.5 tonnes to 10.0 tonnes per annum.
- The time period required for achieving full capacity utilization is six months.

5. Sales revenue

- The ex-factory selling price of the mushroom is Rs. 120 per kilogram thereby yielding a sales revenue of Rs. 12 lakhs on full capacity utilization.

6. Production process outline.

Under the cultivation conditions, the spawn is grown on the compost under regulated temperatures ranging between 16 to 20 degrees centigrade and a relative humidity of 60%. The culture is inoculated on paddy or wheat straw

beds. These beds are first sterilized under steam to kill termites, beetles, insects and bacteria. The straw is later mixed with some amount of compost and urea before being inoculated. Fresh mushrooms on harvesting are frozen immediately to temperatures less than zero degrees centigrade. Lower temperatures prevent wilting, browning of colour, and retain freshness in the product. On freezing, they are packed in polypropylene pouches.

7. Quality specifications

- Protein - 3% minimum on wet weight basis.
- Fat - 0.8% on wet weight basis.
- Minerals - 1.4% on wet weight basis.
- Carbohydrates - 4.3% on wet weight basis.
- Moisture - 88.5%

8. Pollution control measures

Not necessary as there are no pollutants or effluents.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

The proposed unit is to be set up in a leased area in a two-storied building with 2000 square feet of working space divided equally between the two floors. The ground floor will house the raw material compost preparation and pasteurization rooms. The upper floors will house the administrative office, laboratory, cropping room and cold store room for finished goods. Both the floors will be provided with adequate sanitation facilities. The lease rentals for the premises are estimated at Rs. 6000 per month or Rs. 0.72 lakhs per annum.

11. Costing of machinery and equipment

SI	Description	Rs. lakhs
1	Mushroom cultivation beds	0.500
2	Air conditioners for cropping room	0.500
3	Autoclaving unit for sterilization	0.350
4	Deep freezer	0.350
5	Weighing scales and miscellaneous items	0.250
6	Total	1.950
7	Laboratory equipment	0.300
8	Grand total machinery and equipment	2.250

12. Project cost

SI	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	1.950
4	Laboratory equipment	0.300
5	Transport vehicle (1 auto rickshaw)	1.000
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.050
9	Cost of electrification	0.150
10	Erection and commissioning	0.150
11	Cost of machinery spares	0.010
12	Cost of office equipment	0.500
13	Deposits if any	0.400
14	Company formation expenses	0.100
15	Gestation period expenses	0.250
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	1.000
18	Contingencies	0.250
19	Working capital margin money	0.318
20	Total	6.528

13. Working capital requirements per month

a. Salaries and wages

SI	Description	No of persons	Total salary / month (Rs. lakhs)
1	Manager (female)	1	0.080
2	Production supervisor (female)	1	0.060
3	Skilled workers (female)	1	0.050
4	Unskilled workers (female)	2	0.060
5	Administrative staff (female)	1	0.060
6	Driver	1	0.040
7	Total	7	0.350

b. Raw material requirement per month

SI	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Paddy straw	3750	1.50	0.056
2	Rice bran	75	3.00	0.002
3	Urea	80	4.00	0.003
4	Gypsum	200	4.00	0.008
5	Cotton seed meal	100	4.00	0.004
6	Spawn bottles	125	8.00	0.010
7	Pesticides			0.010
8	Total raw material			0.093
9	Handling loss @ 10%			0.009
10	Grand Total			0.102

c. Packaging material requirement per month

SI	Description	Qty	Rate / unit (Rs)	Value (Rs. lakhs)
1	Primary packaging material – Poly propylene pouches	3200 nos	1.00	0.032
2	Thermocole boxes	250 nos	20.00	0.050
3	Total			0.082

Total raw + packaging material = Rs. 0.184 lakhs

d. Utilities per month

SI	Description	Rs. lakhs
1	Power 900 kwh @ Rs. 5.50 per unit	0.050
2	Water	0.010
3	Boiler fuel	0.000
4	Total utilities	0.060

e. Contingent expenses per month

SI	Description	Rs. lakhs
1	Rent for processing shed	0.060
2	Postage and stationery	0.005
3	Telephones, fax etc.	0.010
4	Consumable stores	0.005
5	Repairs and maintenance	0.020
6	Local transports, loading and unloading	0.010
7	Advertisement and publicity @ 5% of sales	0.050
8	Insurance	0.002
9	Sales expenses @ 1% of sales	0.010
10	Miscellaneous expenses @ 1% of sales	0.010
11	Trade incentives @ 2% of sales	0.020
12	Taxes	0.000
13	Total contingent expenses	0.202

f. Total working capital requirement per month

SI	Description	Rs. lakhs
1	Salaries and wages	0.350
2	Raw material and packaging material	0.184
3	Utilities	0.060
4	Contingent expenses	0.202
5	Total	0.796

14. Means of finance

SI	Description	Rs. lakhs
1	Total Project Cost	6.528
2	Equity	2.154
3	Debt	4.374
4	Working capital margin money	0.318

15. Financial analysis

SI	Description	Rs. lakhs
1	Total recurring cost per year	9.552
2	Depreciation on land and building	0.000
3	Depreciation on machinery and vehicle	0.325
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.010
6	Depreciation on office equipment	0.050
7	Interest on long term loan @ 13.5%	0.590
8	Interest on short term borrowings@ 13.5%	0.064
9	Total cost of production	10.591

16. Turnover per year

SI	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	Button mushrooms	10000 kgs	120	12.00

17. Viability analysis

SI	Description	Value
1	Net profit before income tax (Rs. lakhs)	1.409
2	Net profit ratio	11.7%
3	Internal rate of return	22.6%
4	Break even percentage	44%
5	Debt service coverage ratio	1.878

Cultivation of button mushrooms

Machinery not required. Small equipments to be procured locally