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Production Technology of Milky Mushroom

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Milky mushroom (*Calocybe indica*) has become the third commercially grown mushroom in India after button mushroom and oyster mushrooms. This mushroom is fast reputation due to its attractive, robust, white sporocarps, long shelf life, sustainable yield, delicious taste, unique texture and cholesterol free with certain important medicinal properties including their anti- viral effect.

It is suitable for cultivation in tropical and subtropical regions of the country. This variety is new introduction to world mushroom family from India. The locally available substrate like paddy straw is very suitable for the milky mushroom cultivation. Quality spawn is the basic requirement for the mushroom growers. Mushroom cultivation offers an excellent means for recycling agrowastes presently available in India.

Milky mushroom is new species and it is fleshy, milky white, umbrella like mushroom. Mushroom gills and stalks are white in colour. Mushrooms large with long, thick, fibrous stalk. It is suitable for hot and humid climate. Grow well in 25-35 degrees temperature.It can be cultivated throughout the year. Crop cycle is 45-50 days and shelf life: 3-5 days. Biological efficiency ranges from 60-90% on average.

Favourable conditions

- ✓ Temperature requirement for spawn running 30-35 degrees.
- ✓ Spawn running period 24-28 days.
- ✓ Relative humidity 80-90%.

Important special traits

- Excellent shelf life.
- No browning.
- High fibre content.
- High temperature species.

Nutritive value of milky mushrooms

Mature fruit body of *C. indica* contains highest protein (17.2% on dry weight basis), while young pin head contains lowest protein (15% on dry weight basis), Fat (4.1%), crude fibre (3.4%), Carbohydrates (64.26%), soluble sugars (4%) and starch (2.9 %). It contains 12 aminoacids, predominant is Gluycine.

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Materials Required:

- Seed or Spawn .
- Paddy straw as required.
- 50 micron transparent polythene bags .
- Casing soil (sterilized soil as required).

Procedure:

A. Substrate preparation

- Chop the substrate (Paddy straw) into small pieces in order to maintain the size 2-4 cm.
- Soak and resoak the substrate in fresh water.
- Sterilise the paddy straw with Mancoban and Formaldehyde.
- Dry the chemically sterilized paddy straw under shade up to 60% moisture level.

B. Preparation of beds for cultivation of mushroom:

- Take a polythene cover and tie the bottom end with a rubber band and turn it inwards.
- Layer spawning was followed for raising of beds, one layer of paddy straw and another layer of spawn.
- Repeat this process to get 5 straw layers with spawn .
- Press the bed and tie it with a rubber band tightly.
- Small holes were made on the bag to facilitate aeration and gaseous exchange.
- Arrangement of beds in the dark room following rack system.
- Maintain the temperature of 22-25 degrees and relative humidity of 85-90 % inside the dark room .
- Incubation in the dark room for 21 days.
- Watering is given on the walls and floor in the dark room.
- Observe the beds daily for contamination, if any.
- The fully spawn run beds can be shifted to light room after casing for initiation of buttons.

C. **Preparation of casing material**

Casing material is used for covering top surface with soil to provide moisture, support to the fungus.

- Mixing of casing material *i.e.*.,
    - Soil
    - Vermicompost
    - Cocopeat (in 2:1:1 ratio).
- Sterilization and drying of casing material.

D. Casing of beds:

- Take fully spawn run bed and cut horizontally into two equal halves.
- Compact the beds as much as possible by pressing firmly with hand.
- Apply casing soil to a height of 1 inch and press it gently.
- Cased beds were sprayed with water to provide moisture.
- Pinheads will appear 8-12 days after casing .
- Pinheads reach to mature fruiting bodies with in 5-7 days.
- Harvesting of mushroom is done by twisting at the base of the stipe of mushroom .
- Clean the harvested mushroom and packing polythene covers for marketing.

References

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