

Controlled-Environment Greenhouse



Agriculture, Fisheries
and Conservation Department

Newsletter - April 2007

Organic Cultivation of White Button Mushrooms



From the Editor

Button Mushroom, a popular edible fungus, is a good ingredient for both Chinese and western cooking. As fresh button mushrooms add flavour to dishes, there is an increasing demand for them in the market. In this edition, we introduce the cultivation of organic white button mushrooms in sieve trays with controlled-environment facilities.



Spawning, Mycelium Development and Casing

During autumn or winter, fill sieve trays with organic cultivation medium and scatter white button mushroom spawn on it. Put the trays in a dark environment for the mycelia to develop. In about 15 to 20 days, the cultivation medium will be covered with mycelia.



Add a layer of soil of about 5 cm thick over the mycelia. The soil should have a moisture content of about 20% and meet the standards for organic cultivation.

Transfer the sieve trays to the cultivation room for the growing of fruiting bodies.



Growing Environment for Fruiting Bodies

- Illumination: weak and scattered lighting
- Temperature: 13 °C ~ 26 °C
- Relative humidity: 80% ~ 85%
- Good indoor ventilation is necessary.



Cultivation Management of Fruiting Bodies

• Close attention should be paid to the temperature/humidity of the cultivation room and good ventilation be maintained in the room. Lower the temperature and raise the humidity with controlled-environment devices such as shading nets, mist sprayers (humidifier), cooling pads and exhaust fans to create an environment suitable for the growth of fruiting bodies. Since the growth of the fruiting bodies is much affected by the moisture of the soil, the relative humidity of the cultivation room and the moisture of the soil should be carefully controlled. Unsuitable humidity, whether too high or too low, will affect the forming of pinheads, and the growth and quality of the fruiting bodies.

- Keep the cultivation room clean and hygienic. Remove fruiting bodies which are diseased or infested with pests.
- Ready for harvest in about 60 days after spawning.
- Harvested mushrooms can be kept fresh at a low temperature of between 2 °C and 4 °C.



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