



# Controlled-Environment Greenhouse

Newsletter-August 2004



**From the Editor** Coral mushroom, also known as Golden-cap mushroom, is a small edible mushroom with a dazzlingly golden colour and good and fresh taste. If organically grown in a greenhouse, it will have a higher economic value. In this edition, we introduce the use of CE greenhouses to cultivate organic coral mushrooms (from the growth of fruiting bodies in mycelium bags to the harvest stage).



## Modification of CE Greenhouse Environment

- Cover all the internal sides and ceiling of the greenhouse with black covers (e.g. weed control mats) to create a dark environment.
- Use appropriate materials such as iron and aluminium to make planting racks for keeping mycelium bags. Each rack is about 2 feet high, but their number and width depend on the space of the greenhouse.



## Mycelium Bags

- Put the organic materials for growing the mushroom into transparent plastic bags for high-temperature and high-pressure sterilization. Then put the spawn into the bags, which are to be sealed and put in the development room for the mycelia to grow in the bags. A specific environment is required in the room to facilitate the growth of the spawn.



## Cultivation Management

- When the bags are full of mycelia, they can be moved from the development room to the racks in the greenhouse for cultivation.
- Use facilities in the greenhouse like cooling pads, mist sprayers, exhaust fans and shading nets to create an environment favourable for mushroom development: a temperature between 25 and 30 °C, relative humidity between 80 and 90%, dark environment with weak scattered lighting (100 to 500 Lux) and good ventilation.



- Use a clean cutter to cut open the seal to let the fruiting bodies grow.
- Check the bags every day, and clear those contaminated by non-target fungi at once.



## Harvesting

- Harvest when the pileus reach a diameter of about 1 to 1.5 cm.
- The fast-growing coral mushrooms can be harvested 2 to 3 times a day.



### Note:

Growing coral mushroom requires a highly hygienic environment. Follow the hygiene measures whenever going in and out the culture room to minimize contamination.



### Coming Next

**The Use of CE Greenhouse  
in Hong Kong (2)**

For more information and visits to greenhouses,  
please contact: Crops Development Section, AFCD  
(Tel: 2668 0295)

AFCD Home Page <http://www.afcd.gov.hk>