

Good practices to deal with cobweb disease in mushroom cultivation

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The problem

Since November 2021, **an epidemic of cobweb disease** is affecting mushroom crops at European level. In addition, the resistance of this disease to commonly used methods to fight it is increasing. For example, the BIOSCHAMP project has detected strains of *Cladobotryum mycophilum* resistant to the widely used and recommended active substance metrafenone.

The solution

First, specific measures aimed at **prevention and adequate disease treatment** have a positive impact on the spread of the disease.

Then, the BIOSCHAMP project also recommends the use of **specific biostimulant solutions** with antifungal activity to prevent the germination and development of the causative agent of the disease: mycelium of *Cladobotryum spp.*

Benefits

Good cultivation practices & biostimulant solutions provide alternative & effective control measures to prevent diseases through biostimulation in the casing material.

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Practical recommendations

The main control measure is prevention. Control methods should aim to prevent the spread of the disease.

(1) Recommendations on specific measures to apply once the disease has appeared

- Maintain relative humidity (RH) 1-2% lower than usual to prevent conidia germination and disease spread.
- Avoid irrigation on disease colonies.
- Cover the colonies with salt: apply damp paper over diseased patches and add salt to it, in order to avoid the dispersion of the spores.
- Turn off fans or reduce their flowrate in cultivation rooms showing the disease.
- Filter all the air that enters the cultivation room.
- It is advisable to filter exhaust air to prevent the spore release outside the growing facility.

(2) Recommendations on good cultivation practices focusing on prevention:

- Avoid leaving decaying fruiting bodies on mushroom beds.
- Remove stems after harvesting.
- Sweep floors and clean the growing rooms frequently, and keep floors moist.
- Avoid leaving sources of infection (discarded or diseased mushrooms) near the crops.
- Remove infected mushrooms as soon as possible.
- Disinfect machinery and equipment.
- Carry out sanitizing treatments with steam or with disinfectants on the post-cultivation substrate in situ, prior to its removal.
- Disinfection of shoes at the entrance and exit of the crops.

(3) Recommendations on the use of biostimulants

This solution is provided based upon scientific evidence about the initial source of infection; the preventive treatment of specific sources of disease; and the prevention of its spread. The BIOSCHAMP project works on creating solutions with this scope.



About BIOSCHAMP and this Practice Abstract

This practice abstract was elaborated in the BIOSCHAMP project, based on the EIP AGRI practice abstract format. © 2023

Project duration: from October 2020 to September 2024.

Goal: develop an integrated approach to tackle the mushroom cultivation challenges, improving the mushroom sector industrial profitability while reducing the agronomical need for pesticides by 90 %.