Key fungal diseases and prevention in button mushroom cultivation

PEATLESS Project
Practice Abstract No. 10

Author:
Nancy Pyck (Inagro)
nancy.pyck@inagro.be

Country/region:
Belgium

Keywords:
#MushroomCultivation
#FungalDiseases
#IntegratedPestManagement
#PeatAlternatives

Contact Information:
CTICH (Spain - coordinator)
direccion@ctich.com

The problem

The main fungal diseases in button mushroom cultivation are Dry Bubble *(Lecanicillium fungicola)*, Wet Bubble *(Mycogone perniciosa)* and Cobweb *(Cladobotryum* spp.*)*. These pathogens spread through **contaminated casing, water splash, dust, equipment, workers and flies, causing significant yield and quality losses**. Disease control is increasingly challenging due to the limited number of authorised fungicides in the EU and the emergence of resistant pathogen populations.

The solution

Integrated pest management based on **good cultivation practices and strict hygiene measures** can significantly reduce disease pressure. When transitioning towards peat alternatives, the **same high standards remains essential.**

Benefits

Effective disease management supports the successful adoption of peat alternatives by **reducing disease pressure and minimizing yield losses**.

Funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

This project has received funding from the European Union's Horizon Europe Research and Innovation programme under **Grant Agreement No 101216569** and by the Swiss State Secretariat for Education, Research and Innovation (SERI).

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Practical Recommendations

- Protect casing materials and equipment from dust, debris and flies.
- Inspect crops regularly and treat disease immediately.
- Avoid watering over untreated disease patches.
- Maintain strict hygiene for personnel, footwear, tools and equipment.
- Train workers regularly in hygiene and disease management.
- Monitor and control fly populations.
- Remove stumps, compost and casing residues.
- Follow hygiene measures when moving between crops.
- Use authorised crop protection products when appropriate.
- Clean, disinfect and cook-out growing rooms between crops.

Prevention remains the cornerstone of disease management in button mushroom cultivation.

About PEATLESS and this Practice Abstract

This practice abstract was elaborated in the framework of the PEATLESS project, based on the EIP AGRI practice abstract format. © 2023
Project dates: from May 2025 to April 2028.
Goal: To characterise sectorial needs at selected systems towards tailoring PEATLESS alternative substrate blends to overcome identified barriers for peat reduction in horticulture.

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