Key pests and management in button mushroom cultivation

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

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Belgium

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

The problem

Sciarid *(Lycoriella* spp.*)* and phorid *(Megaselia halterata)* flies are among the **most important pests in button mushroom cultivation**. Flies are attracted to the smell of compost and mushroom mycelium and can quickly establish large populations if left uncontrolled. While larvae can damage mycelium and primordia, their greatest impact is the **transmission of fungal pathogens** such as *Trichoderma*, Dry Bubble, Wet Bubble and Cobweb, significantly reducing **mushroom quality and yield**.

The solution

Integrated pest management should focus on **preventing the entry, establishment and spread of flies**. As peat alternatives are introduced into button mushroom cultivation, **maintaining high standards remain essential**.

Benefits

Effective fly management reduces **crop losses and disease transmission** while supporting the **successful adoption of peat alternatives**.

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Practical Recommendations

- Install appropriate filters on air intakes.
- Keep growing room doors closed as much as possible and regularly check seals.
- Monitor fly populations using sticky and UV traps.
- Inspect ventilation systems for leaks.
- Remove stumps, compost, casing residues and other organic waste.
- Keep farm surroundings clean and free of rotting materials.
- Use authorised crop protection methods when appropriate.

Preventing fly entry and limiting their spread remains the cornerstone of pest 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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