

# Good practices in mushroom cultivation to prevent diseases

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## The problem

The increasingly **limited availability of authorized active ingredients to fight against fungal diseases** in mushroom cultivation requires development of programs for the integrated management of pests and diseases to reduce dependence on chemical control.

## The solution

**Good cultivation practices**, focused on preventing disease occurrence, and on how to detect, limit and minimize its spread, to mitigate major impact on the crop.

## Benefits

**1.** Good practices during mushroom cultivation minimize yield losses caused by fungal diseases; lowering the reliance upon phytosanitary products- increasingly expensive and less available.

**2.** Overall reduction of the environmental impact of the sector.



# Good practices in mushroom cultivation to prevent diseases

## Practical recommendations

Prevention of disease occurrence and spread are key practical aspects for mushroom cultivation:

### (1) Recommendations on general good cultivation practices:

- Avoid leaving decaying mushrooms in the facilities.
- Remove the stems from casing soil after harvesting.
- Sweep floors and clean growing rooms frequently.
- Remove potential sources of infection (discarded mushrooms, bubbles) near the crops.
- Remove infected mushrooms as soon as possible.
- Disinfect machinery and equipment.
- Disinfection of shoes at the entrance and exit of the cropping facilities.
- Use air filters to prevent the spread of pests and diseases.

### (2) Recommendations on crop hygiene

- The harvest teams must start picking growing rooms from younger flushes to the oldest ones.
- Disposable gloves should be used and changed for each cultivation room.
- All collection tools and equipment must be disinfected when leaving each room.
- Use of carpets or pits with disinfectant at the entrance of the culture rooms.
- A worker must be in charge of identifying pathogens in the crop and applying specific treatments to prevent their spread.
- Placement of antitrips mesh in the ventilation openings.
- Prevent the circulation of dust in the installation. Moisten floors before sweeping.
- Store casing materials in clean, closed areas covered with plastic.

### (3) Recommendations on disinfection measures:

- Steam disinfection at 65-70°C for 9-12 hours prior to emptying the room is the most effective treatment (cook-out).
- Clean surfaces with a pressure water sprayer before applying disinfection agents, to increase their effect.



#### 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 %.