

Management of mites in mushroom cultivation

Bioschamp project practice abstracts

No. 11

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Country/region: Spain

Keywords: #Mites #MushroomPests

The problem

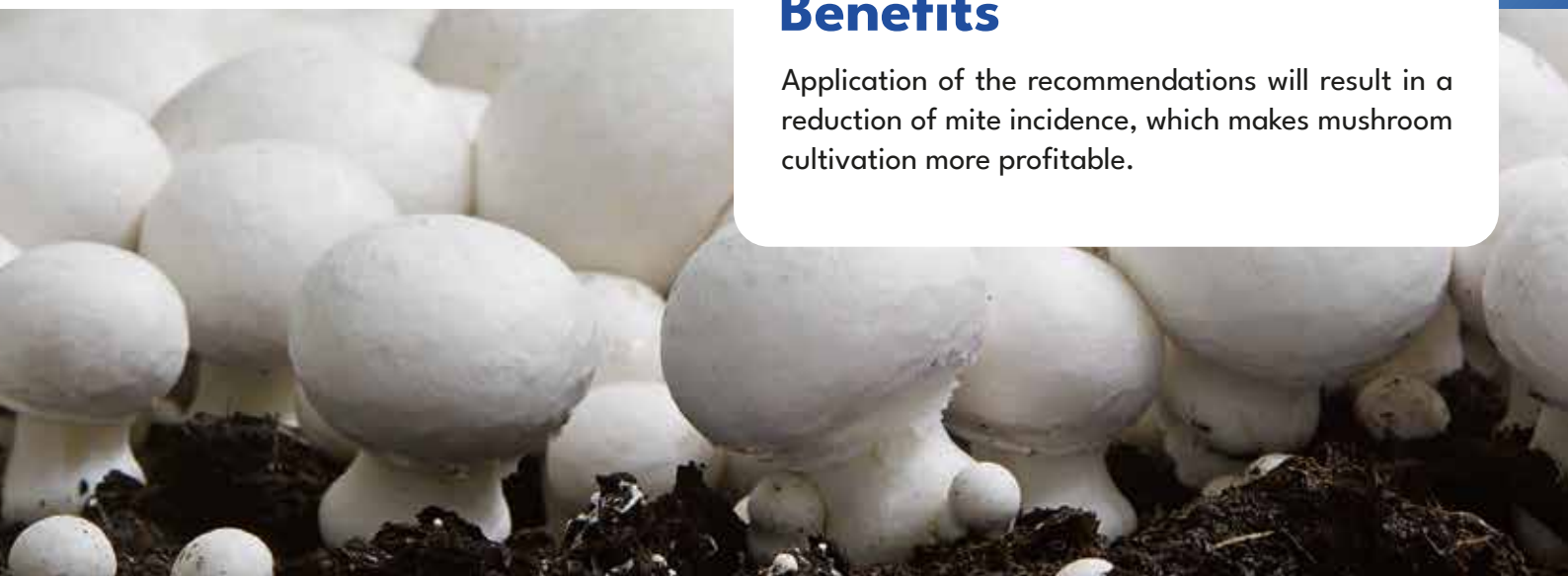
There are a wide variety of mites than can be found in mushroom cultivation. Some of them can directly affect the mushroom crop, such as *Brennandania lambi* (pymy mite) which feeds on the mycelium. Others do not affect the mushroom directly, but they spread diseases, like as *Pymephorus mesembrinae* (red pepper mite) which feed on the *Trichoderma* spp spores and these mites spread this disease in all the crop.

The solution

There is no specific treatment for mites. However, the compounds authorized in mushroom cultivation with deltamethrin also have an acaricidal effect. Paraffin oils could also mitigate the spread of these pests. It should be taken into account that some of these mites use crop flies as “vehicles” to get from one point in the crop to another, so reducing the fly population will also prevent the spread of the mites.

Benefits

Application of the recommendations will result in a reduction of mite incidence, which makes mushroom cultivation more profitable.



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Practical recommendations

(1) Cultivation measures:

- At the end of cropping, strict hygiene of the room.
- Ensure that all machinery involved with the substrate is thoroughly cleaned.
- Make sure all spent compost is removed from the farm.
- Make sure that phase II is in good condition.
- Control Trichoderma.
- Eliminate the vector species by controlling flies in particular.

(2) Workers measures

- Mites can easily stay on the clothes. It is advisable to change clothes if we have been in a room where we know there is a mite infestation.
- Use the disinfectant mats for footwear before entering the room and when leaving the room.
- Do not touch any accumulations of mites on the crop. This would only encourage their dispersal.
- Use hair covers as a hygiene measure.



About BIOSCHAMP and this Practice Abstract

This practice abstract was elaborated in the **BIOSCHAMP** project, based on the EIP AGRI practice abstract format. © 2024

Project dates: 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 %.