



# Project Presentation

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BIOSCHAMP PROJECT Grant Agreement No.  
101000651

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# The BIOSCHAMP project

**Biostimulant alternative casing for a sustainable and profitable mushroom industry**

Grant agreement ID: 101000651

Funded under H2020-EU.3.2.1.1.

Coordinated by: ASOCHAMP-CTICH

Overall budget € 4 179 611,25

**The project lasts 4 years:**

October 2020

May 2023

September 2024



# Challenges in the mushroom sector



## Finding ways to boost profitability & sustainability

BIOSCHAMP is working to deliver an alternative and sustainable low-peat biostimulant casing for the mushroom industry.

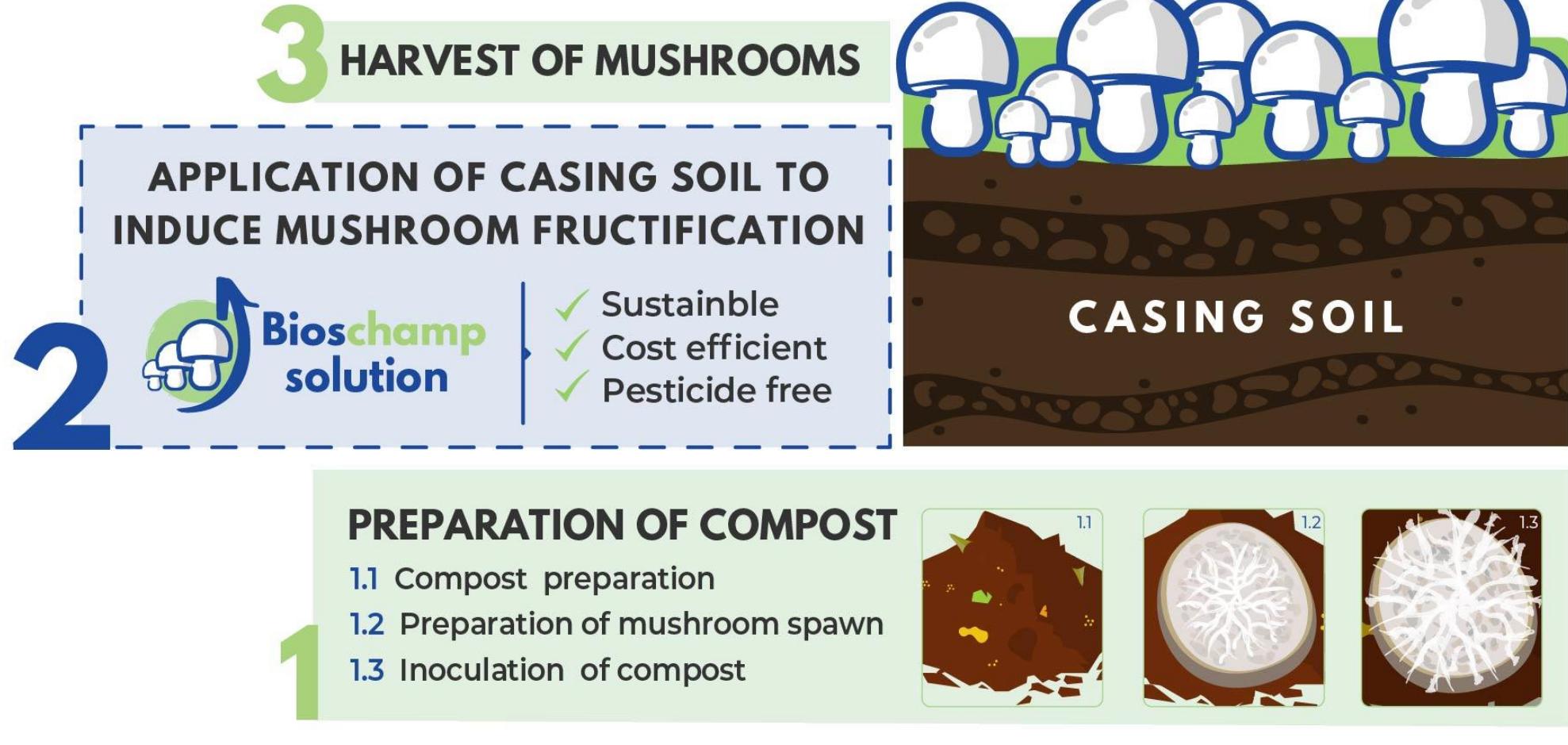


## Fighting diseases

1. The **mushroom sector is heavily affected by diseases**, with shortage of methods to cope with them.
2. **Mushroom growers depend on chemical products** (pesticides) to prevent disease appearance.
3. **Allowed chemical products** for mushroom use is **decreasing**, with evidences of disease resistance.

**The BIOSCHAMP project aims to develop an integrated approach to tackle the mushroom cultivation challenges through a biostimulant solution**

# The BIOSCHAMP solution



# BIOSCHAMP

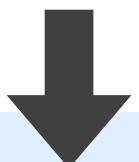
## Project partners

BIOSCHAMP counts with 13 partners from different expertise areas from 7 EU countries.



# Practice abstracts for primary producers

BIOSCHAMP has produced a series of practices abstracts with practical tips & tricks for mushroom cultivation, download them and share!



Download them all here!



**Resistance to fungicides in mushroom cultivation**  
BIOSCHAMP project - practice abstracts  
No. 01  
Authors: Jaime Carrasco - Innovation Manager at CTICH & Pablo Martínez - Project Manager at CTICH  
Contact: j.carrasco@ctich.com  
Country/region: Spain, La Rioja  
Keywords: #fungicides #mushroom #biotechnology #CircularEconomy

**The problem**  
The limited active ingredients available against biotic disorders in mushroom crops, together with an inadequate management of the formulations, facilitate the outbreak of resistant pathogens in the mushroom industry.

**Mushroom cultivation: an opportunity to close the loop for the circular economy**  
BIOSCHAMP project - practice abstracts  
CTICH (Spain) - Jaime Carrasco  
j.carrasco@ctich.com

**Identification, prevention and control of dry bubble**  
BIOSCHAMP project - practice abstracts  
No. 06  
Authors: Jaime Carrasco - Innovation Manager of CTICH & Pablo Martínez - Project Manager of CTICH  
Contact: j.carrasco@ctich.com  
Country/region: Spain, La Rioja  
Keywords: #drybubble #mushroom #biotechnology #CircularEconomy

**The problem**  
Dry bubble caused by the fungal pathogen *Leucosporidium fungicola* (Pezizales) Zare (formerly *Verrucularia fungicola*) is a recurring disease of mushroom cultivation that causes production losses in all producing countries.

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

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

**The problem**  
The current production system is based on a linear model. A "disposable" one-way system where natural resources are transformed into materials & products. This model does not have into account the limitations of the Earth to regenerate resources & absorb waste.

**The solution**  
The Circular economy rises as the alternative option. Circular systems put the generation of sustainable value first: it favors the recovery of materials & prevents the perpetuation of resource losses, all the while generating profit. Mushroom cultivation is a perfect example.

**Benefits**  
Mushroom cultivation uses residues from livestock activities (chicken & horse manure), agriculture (wheat straw, wood chips or sawdust) to generate selective substrates. That is, the process is itself circular. It is a singular horticultural activity that occurs under conditions of high humidity (20-24°C),

**The problem**  
The potential of mushrooms make them even more attractive as an agricultural practice. For example, mushrooms are a great nutritional addition for children: they contain high-quality proteins (proteins & milk); bioactive compounds (antioxidants, micronutrients usually deficient in children like selenium or vit D).

**The solution**  
Mushroom cultivation minimizes the carbon footprint of the agricultural industry.

**Benefits**  
Mushroom cultivation supports circular production & the agri-food sector.

**The problem**  
Dry bubble caused by the fungal pathogen *Leucosporidium fungicola* (Pezizales) Zare (formerly *Verrucularia fungicola*) is a recurring disease of mushroom cultivation that causes production losses in all producing countries.

**The solution**  
Currently, there is only one pesticide agent authorized to fight the dry bubble in mushroom crops: prochloraz-Mn. However, strains resistant to this fungicide (Sporon) have been noted and this year the manufacturer has stopped producing it and it is only available until June 2023.

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

**CTICH (Spain) - Jaime Carrasco  
j.carrasco@ctich.com**

**inovarum Communication Leader  
Project Coordinator**

Would you  
like to know  
more?



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