



Project Presentation

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Co-funded by the Horizon 2020 programme
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BIOSCHAMP PROJECT Grant Agreement No.
101000651

Index

1. The BIOSCHAMP project
2. Challenges addressed
3. Project partners
4. Let's collaborate

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

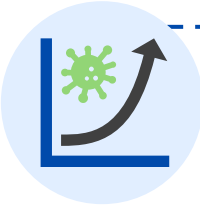


Challenges in the mushroom sector



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

3 HARVEST OF MUSHROOMS

APPLICATION OF CASING SOIL TO
INDUCE MUSHROOM FRUCTIFICATION

2



**Bioschamp
solution**

- ✓ Sustainable
- ✓ Cost efficient
- ✓ Pesticide free



1 PREPARATION OF COMPOST

- 1.1 Compost preparation
- 1.2 Preparation of mushroom spawn
- 1.3 Inoculation of compost



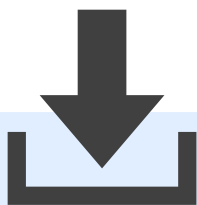
BIOSCHAMP Project partners

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

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Country/region: Spain, La Rioja
Keywords: Fungicides #mushroom
#bioeconomy #CircularEconomy



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The problem

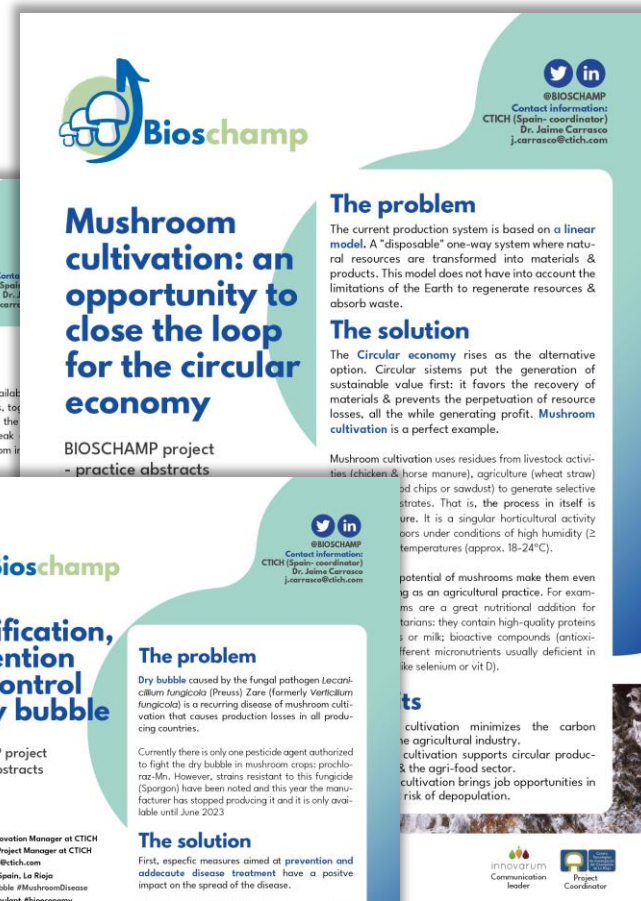
The limited active ingredients available for the control of biotic disorders in mushroom crops, together with an inadequate management of the formulations, facilitate the outbreak of resistant pathogens in the mushroom industry.

The solution

Specific biostimulant activity for developed cultivation losses caused by resistant pathogens.

Benefits

1. A decrease in chemical inputs.
2. Prevention of the use of fungicides.
3. Reduction of cultivation losses.



Mushroom cultivation: an opportunity to close the loop for the circular economy

BIOSCHAMP project
- practice abstracts

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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.

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

The potential of mushrooms make them even more interesting as an agricultural practice. For example, mushrooms are a great nutritional addition for humans: they contain high-quality proteins and fats; or milk: bioactive compounds (antioxidant micronutrients usually deficient in human diet like selenium or vit D).

Benefits

Mushroom cultivation minimizes the carbon footprint of the agricultural industry, supports circular production in the agri-food sector, and brings job opportunities in rural areas at risk of depopulation.

innovarium
Communication
leader

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Identification, prevention and control of dry bubble

BIOSCHAMP project
- practice abstracts

No. 06

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Country/region: Spain, La Rioja
Keywords: #DryBubble #MushroomDisease
#mushroom #biostimulant #bioeconomy
#CircularEconomy

The problem

Dry bubble caused by the fungal pathogen *Lecanarium fungicola* (Preuss) Zare (formerly *Verticillium fungicola*) is a recurring disease of mushroom cultivation that causes production losses in all producing countries.

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

The solution

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

Then, the BIOSCHAMP project also recommends the use of specific biostimulant solutions, the use of specific *Bacillus* strains with selective antifungal activity.

Benefits

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

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Would you like to know more?



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