



# Small-scale Residue Utilisation Pathways (SSRUP) Mushroom

## Description

The type of mobile integrated biorefineries developed in DIVAGRI are Small-Scale Residue Utilisation Pathways (SSRUP) for High-Value Products. They can produce a range of high-value products such as biofuels, fertilizers, animal feeds, mushrooms and non-synthetic fertiliser. Mushroom production, also known as myciculture, is the systematic cultivation of fungi for both culinary and medicinal purposes.

## Benefits

- Mushrooms are low in calories, high in protein, and rich in vitamins and minerals. They can also be grown on organic waste, contributing to organic agriculture
- The commercial cultivation of mushrooms offers economic benefits and trade opportunities.

## Challenges

- The substrate needs to be thoroughly sterilised to prevent contamination.
- The maintenance of a sterile environment requires skills training.

## Country Example: CSIR, Crop Research Institute, Ghana

A structure with cement blocks was erected up to window level and enveloped with bamboo cladding. Wooden shelves were installed to accommodate the nutrient-rich substrate. Spawns were introduced into the substrate and sprayed regularly to regulate the temperature. The mycelium was allowed to colonise substrate fully while matured mushrooms were harvested gently.




## Knowledge Sharing Centres

Below are the contact persons for country specific questions. Please refer to them or the Coordinator from Hochschule Wismar, for details about the technologies that have been piloted or project research, training, and dissemination activities that are being planned in your region or country. The project runs until May 2025, with Knowledge Sharing Centres established to continue the work beyond that date. More details available on the website <https://www.divagri.org>

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This fact sheet serves as a general overview of the above bio-based technology (BBT). It is one of seven BBT factsheets. It describes one prototype of this technology that was developed prior to 2023. Adaptations of it have been made for the various country and local contexts. Please contact the country Knowledge Sharing Centre for more details. The EU-funded DIVAGRI project (2021-2025), 'Revenue diversification pathways in Africa through bio-based and circular agricultural innovations' seeks to provide African subsistence and smallholder farmers with tools to sustainably improve farm productivity, profitability and resilience through improved management of farming resources, output diversification and creation of high-value circular bioproducts. For more, visit [divagri.org](https://www.divagri.org)



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