

## EIP-AGRI practice abstract

### Short title:

Spent mushroom compost generated by mushroom production

### Summary:

Champost or "spent mushroom compost" (SMC) is a by-product of mushroom cultivation. It is a mixture of mushroom substrate and casing soil. For 1 kg of mushroom production, there is 5 kg of SMC generated. This enormous amount of waste results in disposal problems. However, SMC has clear benefits towards agriculture and horticulture, such as high levels of nutrients (0.6% N, 0.4% P, 0.9% K) and high content of organic matter (about 21%), which is free of pathogens, weed seeds and odour. One cubic meter of spent mushroom compost corresponds to 2 to 3 tonnes of solid manure in terms of nutrient content. It also contains about 6–20% calcium in the dry matter, thanks to which it has the capacity to neutralise the soil acidity.

The advantages of using SMC as a soil fertilizer over a chemical fertilizer is that it delivers slow-release of nutrients. Besides, SMC has a low bulk density indicating its relatively porous medium that can enhance the structure of the soils it is amended to. It can be used in several types of farming and for all types of crops, with an application dose of about 10-25 t/ha, depending on the local legislations. Good homogenisation is crucial.

The cost varies between 10€/m<sup>3</sup> and 25€/m<sup>3</sup>, mainly dependent of the amount and transport costs. Additionally composted SMC has an extra cost of 5€/m<sup>3</sup> and has the advantage of lowering the salt content with 60%.

For more information: [https://nutriman.net/farmer-platform/product/id\\_1986](https://nutriman.net/farmer-platform/product/id_1986)