

## Research Article

# Vegetative Growth of *Macrocybe gigantea* (Masse) Pegler & Lodge on Different Carbon and Nitrogen Sources

Munruchi Kaur, Gagan Brar and Sukhdeep Kaur

Department of Botany, Punjabi University, Patiala-147001; Email: [gagan\\_rs23@pbi.ac.in](mailto:gagan_rs23@pbi.ac.in)

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## Abstract

*Macrocybe gigantea* (Masse) Pegler & Lodge collected from the wild source is a known edible species of mushroom. Thus, for the domestication of this wild mushroom, an attempt has been made to evaluate the best carbon and nitrogen sources supporting its vegetative growth. From the 15 carbon sources evaluated, glucose gave best vegetative growth ( $9.1 \text{ mg mL}^{-1}$ ) amongst the monosaccharides followed by galactose, mannose, fructose, ribose and arabinose, whereas the organic acids as carbon sources did not show encouraging results. Amongst the nitrogen sources tested, the complex organic nitrogen source in the form of yeast extract gave the best mycelial growth ( $7.79 \text{ mg mL}^{-1}$ ) followed by peptone ( $7.58 \text{ mg mL}^{-1}$ ) whereas inorganic nitrogen source in the form of sodium nitrate ( $\text{NaNO}_3$ ), and simple organic nitrogen sources such as acrylamide, niacinamide and urea did not give any growth.

**Keywords:** Domestication, dry weight, edible, edible mycelium

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