Journal of Mycology and Plant Pathology
Vol. 54 - Number 4 (December 2024) 424-432
https://doi.org/10.59467/JMPP.2024.54.424

ISSN (Print) : 0971-9393
ISSN (Online) : 0975-4180

Research Article

Nutritional and Antinutritional Content of *Macrocybe gigantea* (Massee) Pegler & Lodge, Another Edible Mushroom of Commercial Importance

Sapna Devi[1] and Geeta Sumbali[2]

[1]Department of Botany, Central University of Jammu, Jammu, [2]Department of Botany, University of Jammu, Jammu E-mail: vermaasapnaa@gmail.com

Abstract

The objective of this work was to assess nutritional and antinutritional content of *Macrocybe gigantea* cultivated on different locally available agrowastes. Assessment of nutritional content showed maximum moisture content (85.6%) and ash content (8.6 g $100g^{-1}$) in the sporophores cultivated on pearl millet stalk, whereas maximum fat content (2.3 g $100g^{-1}$) and protein content (22.6 g $100g^{-1}$) were detected from the sporophores cultivated on wheat straw. Highest crude fiber content (19.5 g $100g^{-1}$) was recorded from the sporophores cultivated on maize stalk. A total of nineteen amino acids were detected from the sporophores, which includednine essential and ten non-essential aminoacids. In addition, some of the essential minerals like potassium, sodium, copper, calcium, magnesium and zinc were also recorded from the sporophores of *M. gigantea,* indication the presence of essential nutrients and can be included in the diet of people belonging to the developing and under developed countries. Two antinutritional components *i.e.* tannins and phytic acid were detected which ranged from 0.13 mg g^{-1} to 0.21 mg g^{-1} and 0.06 mg g^{-1} to 0.10 mg g^{-1} respectively. These findings revealed that the cultivated sporophores of *M. gigantea* can be utilized as an accessible source of nutrients with very low antinutritional components.

Key words: Aminoacids, fatty acids, *Macrocybe gigantea,* minerals. proteins, sporophores

Citation: Devi S and Sumbali G. 2024. Nutritional and antinutritional content of *Macrocybe gigantea* (Massee) Pegler & Lodge, another edible mushroom of commercial importance. *J Mycol Pl Pathol* 54(4): 424-432 (https://doi.org/10.59467/JMPP.2024.54.424)