

Research Article

Utilization of Some Unconventional Agrowastes and Grain Spawns for the Cultivation of *Macrocybe gigantea* (Masse) Pegler & Lodge

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Abstract

Macrocybe gigantea is an edible mushroom, which is lignocellulosic and can be cultivated in subtropical to tropical parts of India. The present study was conducted to evaluate the yield potential of *Macrocybe gigantea* by using some unconventional agrowastes like bajra stalk (*Pennisetum glaucum* L.), maize stalk (*Zea mays* L.) and maize cobs (*Zea mays* L.) and two different cereal grain spawns viz., bajra grain and maize grain spawn. Investigations revealed that time for complete spawn run on the tested agrowastes varied from 14.3 to 20 days, whereas least requirement of 14.3 days was noted on maize stalks inoculated with bajra grain spawn. Highest pinhead number (202.3) and sporophore number (17.0) were recorded on maize stalk substrate inoculated with bajra grain spawn. Further, maximum yield (331.3g/500g of dry substrate) and biological efficiency (66.2%) were also recorded from maize stalks inoculated with bajra grain spawn. This investigation suggests the use of maize stalk substrate and bajra grain spawn for the successful cultivation of *Macrocybe gigantea*.

Key words: Bajra grain spawn, biological efficiency, *Macrocybe gigantea*, maize stalk, yield

Citation: Devi S and Sumbali G. 2021. Utilization of some unconventional agrowastes and grain spawns for the cultivation of *Macrocybe gigantea* (Masse) Pegler & Lodge. *J Mycol Pl Pathol* 51 (1): 95-100