

TITLE: INOCULUM PRODUCTION OF MUSHROOMS NATIVE FROM SOUTHWEST OF THE PARANÁ USING POPCORN AS A SUBSTRATE

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ABSTRACT:

Mushrooms are reproduction structures of filamentous fungi belonging to Basidiomycete class, which include since extremely toxic species, even edible mushrooms that are very consumed especially due to the functional characteristics and nutritional feature. Is highlighted in literature the high levels of protein and fiber in addition to phenolic compounds and high antioxidant capacity. On the face of it, the isolation of strains in pure and surfaced that can be grown and marketed at a low cost is an interesting strategy to increase the availability and consumption of this product. Thus, this work had as objective the inoculum production of mushrooms species belonging to the genera *Agaricus* sp., *Psilocybe* sp. and *Panaeolus* sp., natives from region of Vale do Rio Chopin, in the city of Pato Branco, southwestern Paraná, to later cultivation and nutraceuticals properties studies. Initially, spores of the three strains of yeast were inoculated in Petri dishes containing Potato Dextrose Agar (PDA), which were incubated in the greenhouse BOD in 26 °C for 15 days. Then, have carried out successive raises of the mycelium, the fungal also in PDA under the same conditions of incubation mentioned previously, in order to obtain isolated fungal metabolically active, stable and risomorfic mycelium. Substrate test (popcorn) was subjected to pre-treatment in water at 100 ° C for 40 minutes and then 250 g were packed in flasks of cultivation with cover which have been sterilized in autoclave at 121 °C for 30 minutes. Then, the substrate was inoculated with the strains of yeast studied and the flasks were incubated for 30 days at 26 °C. It was verified satisfactory growth of the strains in the fungal *Agaricus* sp., *Psilocybe* sp. and *Panaeolus* sp. that showed, visually, uniform distribution of the mycelium in the culture medium as well as full colonization of the substrate. The spawn produced can be used to inoculate pasteurized straws and increase the volume of biomass fungus to produce mushrooms on a larger scale, since their production is associated with high profitability.

Keywords: cultivation, nutritional, strain

Development Agency: Universidade Aberta do Brasil - Pato Branco/PR

