Thesis Title	Study on Mycelial Growth of *Ganoderma lucidum* in Liquid Media
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Degree	Master of Science
Programme	Biotechnology
Year	1998
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ABSTRACT

Mycelium of Ling Zhi mushroom (*Ganoderma lucidum*) was cultured in Potato Dextrose Broth (PDB), Yeast-Malt Extract (YM) and Glucose-Yeast Extract (YMK) supplemented with 20, 40 and 60 g/l glucose under static and shake flask conditions. In static condition, the suitable media for mycelium cultivation were YM or YMK supplemented with 20 g/l glucose. In shake flask condition, the mycelium could be cultured in PDB, YM or YMK supplemented with 20 g/l glucose.

Mycelia cultured in PDB, YM and YMK supplemented with 20, 40 and 60 g/l glucose for 28 days under static condition were extracted with hot water. The result showed that crude extract from mycelium cultured in each medium supplemented with 20 g/l glucose could be used. Total polysaccharide and protein contents from each crude extract were determined and calculated from dry weight of mycelium. It was found that polysaccharide extracted from mycelia cultured in PDB, YM and YMK at 60, 20 and 20 g/l glucose, respectively, should be selected. Protein extracted from mycelia cultured in all media at 20 g/l glucose should be selected.