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WHEAT STRAW CONVERSION BY ENZYMA GANODERMA LUCIDUM

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Abstract

The purpose of this study was to resolve the question of whether various concentrations affect characteristics of selected *G. lucidum* ligninolytic wheat straw fermentation. This is the first study reporting the presence of Mn-dependent peroxidase activity in crude extract of *G. lucidum* culture, as well as isoforms of Mn-dependent peroxidases. NH_4NO_3 was the optimum nitrogen source for laccase activity, while peptone was the optimum one for versatile peroxidase activity. Isoforms of laccase and versatile peroxidase activity were obtained by native PAGE and IEF separations from wheat straw fermentation medium. The optimum inorganic nitrogen source, and only two bands from medium containing Mn-oxidizing activity were obtained. The composition was not shown to affect isoenzyme patterns of Mn-oxidizing activity. The results demonstrated that *G. lucidum* has potential for r