

**MYCELIAL GROWTH, YIELD PERFORMANCE AND
MEDICINAL VALUE OF MUTANT LINGZHI STRAINS
Ganoderma lucidum (Leyss. ex Fr.) Karst INDUCED BY GAMMA
RAY RADIATION**

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Summary

This study was carried out to evaluate mycelial growth, yield performance and medicinal value of some lingzhi strains induced by gamma radiation. The results demonstrated that among of 8 mutant strains, strain D-0.75; strain D-1.0 and strain D-1.25 exhibited higher mycelial growth than other strains. All mutant strains cultivated on substrate were able to form and develop fruiting body. As compared with control (28.3 kg/ ton substrate, strain D-1.0 and strain D-1.25 showed high yield and reached 30.3 and 30.5 kg/ ton substrate, respectively. The total polysaccharide content in fruiting body of mutated strains range from 0.12% (D-2,0) to 0.92% (D-0.25). The triterpene analysis of those mutants indicate that mutant D-0.75 has significantly higher triterpene content (1.6 mg/g) compared to control and the two other mutants (D-1.0 & D-1.25).

Key words: *Gamma, lingzhi mushroom, polysaccharide, triterpenoide.*