EFFECT OF SOME FACTORS ON GROWTH AND BIOMASS PRODUCTION OF *Ganoderma lucidum* (Leyss. Ex Fr.) Karst) *IN VITRO* COLLECTED FROM THANH HOA PROVINCE

Pham Bang Phuong, Nguyen Thi Tinh, Vi Dai Lam,

Tran Van Chi, Hoang Van Nang,

Nguyen Tien Dung, Ngo Xuan Bình

Summary

Ganoderma lucidum (Leyss. Ex Fr.) Karst has been used for long time by ethnic people for their health protection and disease treatment. However, nowadays this species is very rare in nature because of over exploitation for commercialization. In this study, we isolated, cultured and studied effect of some factors such as media, pH, saccharose, lactose, glucose, peptone on growth and *in vitro* culture for biomass production of *G. lucidum* (Leyss. Ex Fr.) Karst. The results showed that the best medium for mycelia growth was PDA medium supplemented with 10% of coconut water, 20 g/l glucose and peptone 4 g/l, pH 4-6.5, after 15 days culture, mycelia diameter reached to 50.45 mm. The highest biomass production was carried in flasks containing PD medium and cultured on shaking incubator at 100-150 rmp, 22^{o}C, in dark condition. After 10 days inoculation, biomass reached to 5.67 g/l. These results is significantly in optimalzing the conditions for biomass production of the *Ganoderma lucidum* (Leyss. Ex Fr.) Karst.

Keywords: *Biomass production, G. lucidum, culture, media.*