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Studies on the rapid growth culture of *Phellinus linteus*

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Phellinus linteus (PL), commonly referred as Sangwhang-mushroom in Korea, was reported to be a medicinal mushroom with high anti-tumor activity. However, a *P. haumii* of Sangwhang-mushrooms is mainly cultured in Korea. It is permitted as a food in Korea but not other foreign countries such as Japan. Its effects and effective ingredients are different with PL

PL is 2 or 3 times longer cultivation period as well as more difficult cultivation conditions than *P. haumii*

Therefore, we studied the elements related with rapid growing culture of *P. linteus* and selected optimal conditions as follows.

Firstly, a MPNU7003 strain of PL was more rapid growth than the other strains. Secondly, BYSW(Brewer's Yeast & Sikhae Wastes) as a liquid media was suitable for rapid spawn growth. Thirdly, *Qercus aliena* (70%) and rice bran (30%) were suitable as main media for PL growth. Fourth, CMM(Condensed Mixed Media) was more suitable as additive media than the others such as PHCS(Peanut hulls + Cotton seed), Silk Worm, Shrimp powder, Corn cobs, and Beef extract for rapid growth. Interestingly, CMM(Condensed Mixed Medium) shows rapid growth and high density of the mycelium, but shows high contamination percentage. However Beet extracts shows rapid growth as well as low contamination percentage. Lastly, the rapid speed of air circulation helps to grow the PL.