

**PEMANFAATAN KULIT KAYU MANGIUM DARI LIMBAH INDUSTRI PULP
UNTUK MEDIA PRODUKSI *Ganoderma lucidum*
(The utilization of mangium bark from the waste of pulping industry for
Ganoderma lucidum production medium)**

Oleh/By:

Sihati Suprpti, Djarwanto dan Ridwan Ahmad Pasaribu

ABSTRACT

Cultivation medium for *Ganoderma lucidum* was made from sawdust of free tannin and mangium bark, composted with rice bran 10%, grind corn 5%, lime 2%, gypsum 0.5% and plain water sufficiently. Comparing that treatment was using the same composition added with sawdust of sengon wood. Biological conversion efficiency was calculated based on the mushroom's weight divided by dried weight of the medium and presented in percentage. The result showed that the mycelium growth on spawn of mangium sawdust was nearly the same as its growth on spawn of sengon wood sawdust. The mycelium growth was spread entirely on the surface of medium at 3-4 weeks after inoculation. Both composition of the medium were suitable used for spawn mushroom media. In the application of those two spawn for mushroom cultivation medium showed that the average of their mycelium growth were nearly same i.e. 99.8% (for spawn of mangium wood) and 99.7% (for spawn of sengon wood). The mycelium growth rate on medium made of tannin extracted mangium wood bark was faster (3.85% per day) than that on non extracted wood bark which was 2.94 – 3.03% per day. The harvesting was carried out when its fruit body have matured i.e. 62 days (HHB-322 and HHB-328), and 64 days (HHB-333). The highest mushroom's weight and its BE value was obtained by *G. lucidum* HHB-328 on media containing of sengon wood sawdust mixed in a warm water (media F), that is 78.72 gram with the value EB 16.79%. While, the lowest weight and BE value was obtained on medium mangium wood bark extracted the tannin (media D).

Key words: Mangium bark, medium, mushroom, growth, biological conversion efficiency²

ABSTRAK

Media pertumbuhan *Ganoderma lucidum* dibuat dari serbuk kulit kayu mangium dengan perlakuan diekstrak dan tidak diekstrak taninnya, serbuk gergaji kayu sengon, dan campuran keduanya ditambah dengan dedak 10%, menir jagung 5%, kapur 2%, gips 0,5% dan air bersih secukupnya. Media yang telah steril diinokulasi bibit jamur dalam media serbuk gergaji kayu mangium dan atau sengon. Efisiensi konversi biologi (EB) dihitung berdasarkan bobot jamur dibagi bobot media kering dan dinyatakan dalam persen. Hasilnya menunjukkan bahwa rata-rata pertumbuhan miselium pada media kultivasi hampir sama yaitu 99,8% (bibit dari kayu mangium) dan 99,7% (bibit dari kayu sengon). Laju pertumbuhan miselium pada media kulit kayu yang diekstrak taninnya cenderung lebih cepat (3,85% per hari) dibandingkan dengan laju pertumbuhannya pada media kulit kayu yang tidak diekstrak taninnya (2,94-3,03% per hari). Pemanenan jamur dilakukan apabila tubuh buah telah masak petik yaitu pada umur 62

hari (HHB-322 dan HHB-328) dan pada umur 64 hari untuk HHB-333. Bobot jamur dan nilai EB tertinggi dijumpai pada media F (media yang menggunakan air hangat dan serbuk kayu sengon) yang diinokulasi *G. lucidum* HHB-328, yaitu 78,72 gram dengan nilai EB 16,79%. Sedangkan bobot dan nilai EB terendah dijumpai pada media kulit kayu mangium yang diekstrak taninnya (media D).

Kata Kunci: Kulit mangium, media, jamur, pertumbuhan, efisiensi konversi biologi