

# STUDI PERTUMBUHAN BEBERAPA ISOLAT JAMUR TIRAM (*Pleurotus* spp.) PADA BERBAGAI MEDIA BERLIGNIN

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## ABSTRACT

**The Growth Study of Some Oyster Mushroom (*Pleurotus* spp.) Isolates on Some Ligneous Media.** Research to study the growth of some pleurotus isolates on some ligneous media were conducted at Forest Pathology Laboratory, Faculty of Forestry and Biological Science Study Center, Bogor Agricultural University in September 2004 to March 2005. Substances which used were *Pleurotus* sp.1, *Pleurotus* sp.6, and *Pleurotus* sp.8 from Forest Pathology laboratory collection, PDA, MEA, MPA, some natural lignin source to be added to the commercial media. Optimum media for *Pleurotus* sp.1 is PDA, MEA + bamboo apus dust, and Glenn and Gold modification + sengon wood dust. *Pleurotus* sp.6 grow best at MPA, MEA + paddy straw dust, and Glenn and Gold modification + paddy straw dust. Optimum media for *Pleurotus* sp.8 is MPA, MEA + paddy straw dust added media, MEA + paddy hay dust, and Glenn and Gold modification + sengon wood dust. The difference of colony growth is caused by isolate and nutrition of each growth media. *Pleurotus* sp.6 and *Pleurotus* sp.8 known produce lyses zone at media which contain lignin source. Lyses zone caused by existence of extracellular enzyme which secreted by mushroom hype to degrade lignin. All mycellium dry weight of *Pleurotus* spp. isolat that is given wobble is higher than don't given. Mycellium dry weight from high to low showed by *Pleurotus* sp.8, *Pleurotus* sp.6 and *Pleurotus* sp.1. The difference of colony growth caused by isolat and nutrition of each growth media. Lysis zone at media with lignin source caused by extracellular enzyme activity to degradate lignin source as their nutrition. The difference of mycellium dry weight at both treatment is caused by the response to oxygen in the liquid media.

**Key words:** *Pleurotus* spp, PDA, MEA, MPA, bamboo dust, sengon wood dust, Glenn & Gold, modification.

## ABSTRAK

Penelitian ini bertujuan untuk mempelajari pertumbuhan koloni beberapa isolat jamur tiram (*Pleurotus* spp.) yang dikulturkan pada berbagai media dengan sumber lignin alami, dilakukan dari bulan September 2004 sampai Maret 2005, bertempat di Laboratorium Penyakit Hutan, Fakultas Kehutanan, dan Laboratorium Mikrobiologi dan Biokimia, Pusat Studi Ilmu Hayat, Institut Pertanian Bogor. Bahan yang digunakan adalah *Pleurotus* sp.1, *Pleurotus* sp.6, dan *Pleurotus* sp.8, MEA, MPA, PDA, dan beberapa macam sumber lignin alami yang ditambahkan pada tiga media komersial tersebut. *Pleurotus* sp.1 tumbuh terbaik pada media PDA, MEA + serbuk kayu sengon, serta media modifikasi Glenn dan Gold + serbuk bambu apus. *Pleurotus* sp.6 tumbuh terbaik pada media MPA, MEA + serbuk jerami padi, serta media modifikasi Glenn dan Gold + serbuk jerami padi. Isolat *Pleurotus* sp.8 tumbuh terbaik pada media MPA, MEA + serbuk kayu sengon, serta media modifikasi Glenn dan Gold + serbuk jerami padi. *Pleurotus* sp.6 dan *Pleurotus* sp.8 menghasilkan zona lisis berbentuk lingkaran coklat kekuningan pada media yang ditambah sumber lignin alami. Bobot kering miselia *Pleurotus* spp. pada media malt ekstrak cair yang ditambah serbuk jerami padi atau serbuk kayu sengon dengan diberi penggoyangan, lebih tinggi dibanding dengan *Pleurotus* spp. pada media yang sama tanpa diberi

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