Pengaruh Konsentrasi $CaCO_3$ Terhadap Pertumbuhan Jamur Tiram (*Pleurotus ostreatus*) dan Kuping (*Auricularia auricula*) pada Media Kayu Mangga (*Mangifera indica*)

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INTISARI

Industri kayu Indonesia menghasilkan limbah kayu yang signifikan, termasuk serbuk gergajian yang berpotensi sebagai media tanam jamur. Serbuk kayu sengon umum digunakan sebagai media tanam jamur. Namun dikarenakan kegunaan lainnya serta minat ekspornya yang tinggi, diperlukan sumber bahan baku alternatif. Salah satu alternatifnya adalah ceriping dari limbah pangkasan pohon mangga harum manis. Dalam budidaya jamur, kapur ($CaCO_3$) ditambahkan untuk menyesuaikan pH media. Kapur jenis ini digunakan karena murah dan mudah didapatkan. Penelitian ini bertujuan untuk mengetahui pengaruh variasi konsentrasi $CaCO_3$ terhadap produktivitas serta membandingkan produktivitas dari dua jenis jamur yang berbeda pada media tanam jamur kayu mangga.

Penelitian ini menggunakan model rancangan acak lengkap (*Completely Randomized Design*) menggunakan faktor perlakuan konsentrasi $CaCO_3$ (0%, 1%, 2%) pada jamur tiram dan kuping. Parameter yang diamati yaitu pH media, pertumbuhan miselia, berat basah serta kering jamur, kadar air jamur, berat akhir *baglog*, kadar air media, dan *biological conversion* jamur.

Konsentrasi kapur hanya berpengaruh pada parameter berat basah dan kering jamur kuping. Secara keseluruhan, jamur tiram lebih unggul jika dibandingkan dengan jamur kuping. Faktor konsentrasi $CaCO_3$ hanya berpengaruh terhadap berat basah jamur. Pertumbuhan miselia jamur tiram sebesar 1,87 cm/hari dan jamur kuping 1,13 cm/hari. Berat basah jamur tiram sebesar 28,41 g dan jamur kuping 13,87 g. Berat kering jamur tiram sebesar 3,09 g dan jamur kuping 1,01 g. Kadar air jamur tiram sebesar 82,43% dan jamur kuping 75,4%. Nilai *biological conversion* jamur tiram sebesar 6,51% dan jamur kuping 2,66%. Konsentrasi $CaCO_3$ terbaik untuk produktivitas jamur tiram dan kuping adalah 0%.

Kata Kunci: *$CaCO_3$, kayu mangga, biological conversion, budidaya jamur konsumsi*

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$CaCO_3$ Concentration Effect on Oyster Mushroom (*Pleurotus ostreatus*) and Woodear Mushroom (*Auricularia auricula*) Using Mango Wood (*Mangifera indica*) Media

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ABSTRACT

Indonesia's wood industry generates significant wood waste, including sawdust which has potential as mushroom cultivation media. Sengon sawn waste are used as the main raw material for mushroom cultivation media. Nonetheless, because of its wide use and its high export demand, alternative material is needed. Mangga harum manis pruning waste has potential. In mushroom cultivation, the addition of $CaCO_3$ is added to adjust the mushroom media pH. This type of lime is used because it is cheap and easy to obtain. This research intended to analyse interactions between $CaCO_3$ concentrations with oyster and wood ear mushroom towards its productivity on mango wood media.

The Completely Randomized Design was used in this study with using $CaCO_3$ concentrations (0%, 1%, 2%) as factors on oyster and wood ear mushroom. The observed parameters in this study are media pH, mycelium growth, fresh and dry body weight, mushroom water content, final baglog weight, media water content, and mushroom biological conversion.

Difference $CaCO_3$ only affecting wood ear mushroom fresh and dried body weight. As a whole, oyster mushroom has superiority over wood ear mushroom in terms of productivity. The result for oyster and wood ear mushroom respectively: mycelium growth resulted in 1.87 cm/day and 1.13 cm/day; fresh weight resulted in 28,41 g and 13,87 g; dry weight resulted in 3,09 g and 1,01 g; moisture content resulted in 82.43% and 75.4%; biological conversion resulted in 6,51% and 2,66%. Overall, the best $CaCO_3$ concentration for both mushroom species productivity is 0%.

Keywords: $CaCO_3$, mango wood, biological conversion, edible mushroom cultivation

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