

## Pengaruh Konsentrasi CaCO<sub>3</sub> Terhadap Pertumbuhan Jamur Tiram (*Pleurotus ostreatus*) dan Kuping (*Auricularia auricula*) Pada Media Serpih Kayu Alpukat (*Persea americana*)

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### INTISARI

Budidaya jamur konsumsi mengalami perkembangan dan kian diminati di Indonesia. Selama ini para petani jamur menggunakan limbah serbuk gergajian kayu sengon sebagai media tumbuh jamur konsumsi. Meningkatnya permintaan akan limbah serbuk gergajian kayu sengon membuat harganya semakin naik. Kelangkaan serbuk gergaji kayu sengon mendorong pencarian bahan alternatif yang mudah ditemukan, salah satunya kayu alpukat. Dalam budidaya jamur konsumsi, penambahan kapur (CaCO<sub>3</sub>) bertujuan untuk mengatur pH media tumbuh jamur. Penelitian ini bertujuan untuk mengetahui pengaruh variasi konsentrasi CaCO<sub>3</sub> terhadap produktivitas serta membandingkan produktivitas dari dua jenis jamur yang berbeda pada media tanam jamur kayu alpukat.

Penelitian ini menggunakan bahan baku dari serpih kayu alpukat dengan model rancangan acak lengkap (*Completely Randomized Design*) menggunakan faktor perlakuan konsentrasi CaCO<sub>3</sub> (0%, 1%, 2%) pada jamur tiram dan kuping. Parameter yang diamati yaitu pH media, pertumbuhan miselium, berat basah serta kering jamur, kadar air jamur, berat akhir *baglog*, kadar air media, dan *biological conversion* jamur.

Hasil dari penelitian ini menunjukkan bahwa interaksi antara jenis jamur dan konsentrasi CaCO<sub>3</sub> pada media kayu alpukat ternyata tidak berpengaruh terhadap produktivitas jamur tiram dan jamur kuping yang meliputi pertumbuhan miselium, berat basah, berat kering, kadar air, dan *biological conversion*. Berat kering, kadar air, dan *biological conversion* hanya dipengaruhi oleh jenis jamur. pada penelitian ini didapat kombinasi perlakuan paling optimal untuk jamur tiram pada konsentrasi CaCO<sub>3</sub> 0% yang menghasilkan berat kering 3,86 g dan *biological conversion* 5,89%. Sedangkan kombinasi perlakuan paling optimal pada jamur kuping adalah konsentrasi CaCO<sub>3</sub> 0% yang menghasilkan berat kering 7,87 g dan *biological conversion* 12,61%.

Kata Kunci: alpukat, jamur, budidaya, CaCO<sub>3</sub>,

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**Effect of  $\text{CaCO}_3$  Concentration of Oyster Mushrooms (*Pleurotus ostreatus*) and Wood Ear Mushrooms (*Auricularia auricula*) Growth on Avocado Wood Chips (*Persea americana*) Medium**

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**ABSTRACT**

The cultivation of edible mushrooms has developed and become increasingly popular in Indonesia. Mushroom farmers have commonly used sawmill waste from sengon (*Albizia chinensis*) wood as a growth medium for edible mushrooms. The increasing demand for sengon sawdust waste has led to a rise in its price. The scarcity of sengon sawdust has encouraged the search for alternative and easily obtainable materials, one of which is avocado (*Persea americana*) wood. In the cultivation of edible mushrooms, the addition of lime ( $\text{CaCO}_3$ ) aims to regulate the pH of the growth medium. This study aims to determine the effect of varying concentrations of  $\text{CaCO}_3$  on productivity and to compare the productivity of two different mushroom species grown on an avocado wood substrate.

This research used avocado wood chips as the main substrate and used a Completely Randomized Design (CRD) with two factors of  $\text{CaCO}_3$  concentration treatments of 0%, 1%, and 2% applied to oyster mushrooms (*Pleurotus ostreatus*) and ear mushrooms (*Auricularia auricula*). Assessed parameters included media pH, mycelial growth, fresh and dry weight of mushrooms, mushroom moisture content, final baglog weight, media moisture content, and biological conversion.

The results of this study showed that the interaction between mushroom species and  $\text{CaCO}_3$  concentration on avocado wood substrate did not significantly affect the productivity of oyster and ear mushrooms, including mycelial growth, fresh weight, dry weight, moisture content, and biological conversion. Dry weight, moisture content, and biological conversion were only influenced by the mushroom species. In this study, the most optimal treatment combination for oyster mushrooms was at a  $\text{CaCO}_3$  concentration of 0%, producing a dry weight of 3.86 g and a biological conversion of 5.89%. Meanwhile, the most optimal treatment combination for ear mushrooms was also at a  $\text{CaCO}_3$  concentration of 0%, producing a dry weight of 7.87 g and a biological conversion of 12.61%.

Keyword: avocado, mushroom, cultivation,  $\text{CaCO}_3$

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