

**PENGARUH MEDIA TANAM *SLUDGE* BIOGAS SAPI PERAH
DAN TONGKOL JAGUNG TERHADAP PERTUMBUHAN
JAMUR TIRAM PUTIH (*Pleurotus florida*)**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh media tanam sludge biogas sapi perah dan tongkol jagung terhadap pertumbuhan jamur tiram putih (*Pleurotus florida*). Sludge biogas sapi perah dikeringkan dibawah sinar matahari sampai kering dan kemudian dihaluskan. Tongkol jagung dibersihkan dari kulit dan biji yang masih menempel dan kemudian dihaluskan. Kontrol (P0) yang digunakan adalah media tanam dengan 100% tongkol jagung. Komposisi tiap perlakuan berisi perbandingan dari tongkol jagung dan sludge biogas sapi perah dengan perbandingan 75%:25% (P1), 50%:50% (P2), 25%:75% (P3), dan 0%:100% (P4). Setiap perlakuan dilakukan 3 kali pengulangan. Masing-masing perlakuan media tanam diuji kandungan nutrisinya meliputi kadar air, bahan organik, serat kasar, C-organik, N-total, rasio C/N, P total, dan K total. Parameter produktivitas jamur yang diamati meliputi umur tumbuh, umur panen, berat segar, jumlah tudung, lebar tudung, dan panjang tangkai. Data dianalisis dengan menggunakan Rancangan Acak Lengkap (RAL) pola searah dan data yang berbeda diuji lanjut dengan uji Duncan's New Multiple Range Test (DNMRT). Hasil penelitian menunjukkan bahwa penggunaan sludge biogas sapi perah sebagai media tanam mampu meningkatkan kandungan nutrient media tanam jamur seperti kadar air sebesar 11,35%, serat kasar sebesar 15,71%, N-total sebesar 70,03%, dan fosfor sebesar 77,70%. Penggunaan sludge biogas sapi perah mampu mempercepat umur tumbuh dan umur panen jamur tiram putih menjadi umur tumbuh 39,67 hari dan umur panen 6,67 hari.

(Kata kunci: *sludge* biogas sapi perah, tongkol jagung, jamur tiram putih)

THE EFFECT OF DAIRY SLUDGE BIOGAS AND CORNCOB IN MEDIA PLANTATION ON THE GROWTH OF WHITE OYSTER MUSHROOM (*PLEUROTUS FLORIDA*)

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ABSTRACT

This research aimed to determine the effect of planting media made of dairy sludge biogas and corn cobs on the productivity of white mushroom (*Pleurotus florida*). Dairy sludge biogas was dried in the sun until dry and then mashed. Corn cobs were cleaned of skin and seeds that are still attached and then mashed. The control (P0) used was planting media with 100% corn cobs. The composition of each treatment contains a ratio of corn cobs and dairy sludge biogas with a ratio of 75%:25% (P1), 50%:50% (P2), 25%:75% (P3), and 0%:100% (P4). Each treatment was repeated 3 times. Each treatment of planting media was tested for nutrient content including moisture content, organic matter, crude fiber, C-organic, total N, C/N ratio, total P, and total K. The parameters of observed mushroom productivity included growing age, harvesting age, fresh weight, number of caps, width of hood, and length of stalk. Data were analyzed using a unidirectional completely randomized design (RAL) and different data were further tested with Duncan's New Multiple Range Test (DNMRT). The results showed that the use of dairy sludge biogas as a planting medium was able to increase the nutrient content of mushroom planting media such as water content of 11.35%, crude fiber by 15.71%, total N-70.03%, and phosphorus by 77.70%. The use of dairy sludge biogas was able to accelerate the growing age and harvesting age of white mushrooms to 39.67 days of growth and 6.67 days of harvest.

(Key words: dairy sludge biogas, corn cobs, white mushrooms)