

RINGKASAN

Baglog jamur tiram umumnya memiliki masa produktif 3-4 bulan sejak masa penanaman bibit jamur hingga masa panen. Setelah masa produktif habis, baglog media jamur tersebut akan menjadi limbah. Limbah media tanam jamur memiliki kandungan nutrisi seperti nitrogen, fosfor, dan kalium. Komposisi tersebut dibutuhkan oleh tanaman dan bermanfaat untuk meningkatkan kesuburan tanah sehingga limbah media jamur memiliki potensi untuk diolah kembali menjadi pupuk organik. Penelitian ini bertujuan untuk mengetahui seberapa besar kandungan unsur nitrogen, fosfor, dan kalium pada pupuk organik berbasis limbah baglog jamur tiram dengan penambahan jenis kotoran hewan yang berbeda.

Penelitian menggunakan metode eksperimental, dengan rancangan acak lengkap. Penelitian dilaksanakan dengan 4 perlakuan dan diulang sebanyak 3 kali, sehingga didapatkan 12 unit percobaan. Faktor yang diujikan yaitu jenis kotoran hewan yang berbeda, meliputi kotoran hewan sapi, kotoran hewan kambing, dan kotoran hewan ayam. Variabel bebas berupa jenis kotoran hewan sebagai bahan penyusun, sedangkan variabel terikat yaitu kandungan unsur nitrogen, fosfor, dan kalium pada kompos yang dihasilkan. Parameter yang diukur dalam penelitian ini yaitu parameter utama dan parameter pendukung. Parameter utama yaitu jumlah kandungan unsur nitrogen (N), fosfor (P_2O_5), dan kalium (K_2O) pada setiap perlakuan. Parameter pendukungnya berupa suhu kompos, pH kompos, serta kelembapan kompos pada saat perlakuan. Penelitian ini dilaksanakan di Asa Agro Corporation Cianjur, Laboratorium Mikologi dan Fitopatologi Fakultas Biologi, Laboratorium Tanah Fakultas Pertanian Universitas Jenderal Soedirman, serta Balai Lingkungan dan Pertanian Jakenan, Pati.

Hasil penelitian menunjukkan bahwa pengomposan limbah media tanam jamur tiram dengan penambahan kotoran hewan kambing dan ayam selama 21 hari menghasilkan pupuk organik yang mengandung nitrogen, fosfor, dan kalium sesuai standar SNI 7763-2024 total masing-masing sebesar 2,32% dan 4,84%, dibandingkan pada perlakuan penambahan kotoran sapi dan tanpa penambahan kotoran hewan yang menunjukkan hasil lebih rendah. Hasil perlakuan tanpa penambahan kotoran ternak (P0) sebesar 1,56% tidak memenuhi standar kualitas kompos.

Kata kunci: *baglog, fosfor, kalium, limbah, nitrogen, pupuk organik.*

SUMMARY

Oyster mushroom baglogs generally have a production period of 3-4 months. After their production period ends, the mushroom media baglogs become waste. Mushroom media waste contains nutrients such as nitrogen, phosphorus, and potassium. These nutrients are needed by plants and are also beneficial for increasing soil fertility, so mushroom media waste has the potential to be processed into organic fertilizer. This research aims to determine the content of nitrogen, phosphorus, and potassium content in organic fertilizers based on oyster mushroom media waste with the addition of different types of animal manure.

The research used an experimental method, with a completely randomized design (CRD). The research was conducted with 4 treatments and 3 replications, resulting in 12 experimental units. The factors tested were different types of animal manure, including cow manure, goat manure, and chicken manure. The independent variable was the type of animal manure, while the dependent variable was the nutrient content of nitrogen, phosphorus, and potassium in the resulting compost. The parameters measured in this study were the main parameters and supporting parameters. The main parameter was the amount of nitrogen (N), phosphorus (P_2O_5), and potassium (K_2O) nutrient content in each treatment. The supporting parameters were compost temperature, pH, and moisture during the treatment. This research was conducted at Asa Agro Corporation Cianjur, the Mycology and Phytopathology Laboratory of the Faculty of Biology, the Soil Laboratory of the Faculty of Agriculture, Jenderal Soedirman University, and the Jakenan Environmental and Agricultural Center, Pati.

The results of the research showed that composting oyster mushroom growing media waste with the addition of goat and chicken manure for 21 days produced organic fertilizer containing nitrogen, phosphorus, and potassium according to SNI 7763-2024 standards, totaling 2.32% and 4.84%, compared to the treatment of adding cow manure and without adding animal manure which showed lower results. The results of the treatment without adding animal manure (P0) of 1.56% did not meet the compost quality standards.

Keywords: *baglog, nitrogen, organic fertilizer, phosphorus, potassium, waste*