

ABSTRAK

PENGARUH TAKARAN PORASI KULIT DURIAN TERHADAP PERTUMBUHAN DAN HASIL TANAMAN TOMAT (*Solanum lycopersicum* L.)

Oleh
Ade Hilman Alpajar
NPM 205001004

Dosen Pembimbing:
Rudi Priyadi
Yogi Nirwanto

Kulit durian merupakan bagian dari buah durian yang tidak dikonsumsi dan berpotensi untuk dimanfaatkan sebagai bahan baku dalam pembuatan pupuk organik yang berguna bagi tanaman serta perbaikan sifat fisik, kimia, dan biologi tanah. Penelitian bertujuan guna menguji pengaruh porasi kulit durian terhadap pertumbuhan dan hasil tanaman tomat serta mengetahui takaran porasi kulit durian yang berpengaruh paling baik terhadap pertumbuhan dan hasil tanaman tomat. Penelitian dilaksanakan di Kampung Ranto, Kecamatan Cikatomas, Kabupaten Tasikmalaya pada bulan Desember 2024 sampai bulan Maret 2025. Metode yang digunakan yaitu Rancangan Acak Kelompok (RAK) yang terdiri dari 6 perlakuan dan diulang sebanyak 4 kali. Perlakuan terdiri dari A (pupuk NPK 16:16:16 350 kg/ha), B (porasi kulit durian 5 t/ha), C (porasi kulit durian 10 t/ha), D (porasi kulit durian 15 t/ha), E (porasi kulit durian 20 t/ha), dan F (porasi kulit durian 25 t/ha). Hasil penelitian menunjukkan bahwa pemberian porasi kulit durian berpengaruh terhadap pertumbuhan dan hasil tanaman tomat. Takaran porasi kulit durian 25 t/ha memberikan hasil paling baik dengan tinggi tanaman mencapai 105,48 cm, jumlah daun sebanyak 16,93 helai, jumlah buah sebanyak 20,53 buah, bobot buah per tanaman mencapai 1,57 kg, bobot buah per petak mencapai 9,40 kg, dan potensi hasil mencapai 62,68 t/ha, sedangkan takaran porasi kulit durian 5 t/ha memberikan hasil paling baik terhadap munculnya bunga pada tanaman tomat yaitu 28,18 hari. Secara keseluruhan takaran porasi kulit durian 25 t/ha memberikan hasil lebih baik untuk pertumbuhan dan hasil tanaman tomat, sehingga menjadi pilihan terbaik untuk mencapai hasil tanaman tomat yang maksimal.

Kata kunci: Fermentasi, kulit durian, m-bio, porasi, tomat

ABSTRACT

THE EFFECT OF THE DOSAGE OF DURIAN RIND FERMENTED ORGANIC FERTILIZER ON THE GROWTH AND YIELD OF TOMATO PLANTS (*Solanum lycopersicum* L.)

By
Ade Hilman Alpajar
NPM 205001004

Supervisors:
Rudi Priyadi
Yogi Nirwanto

Durian rind is a part of the durian fruit that is not consumed and has the potential to be utilized as a raw material for making organic fertilizer that is beneficial for plants and improving the physical, chemical, and biological properties of soil. The research aims to test the effect of durian rind fermented organic fertilizer on the growth and yield of tomato plants and to determine the durian rind fermented organic fertilizer that has the best effect on the growth and yield of tomato plants. The research was conducted in Kampung Ranto, Cikatomas District, Tasikmalaya Regency from December 2024 to March 2025. The method used is a Randomized Block Design (RBD) consisting of 6 treatments and repeated 4 times. The treatments consist of: A (NPK fertilizer 16:16:16 350 kg/ha), B (durian rind fermented organic fertilizer 5 t/ha), C (durian rind fermented organic fertilizer 10 t/ha), D (durian rind fermented organic fertilizer 15 t/ha), E (durian rind fermented organic fertilizer 20 t/ha), and F (durian rind fermented organic fertilizer 25 t/ha). The research results show that the application of durian rind fermented organic fertilizer affects the growth and yield of tomato plants. The application of durian rind fermented organic fertilizer at 25 t/ha gives the best results with a plant height reaching 105,48 cm, a leaf count of 16, 93 sheets, a fruit count of 20,53 fruits, a fruit weight per plant reaching 1,57 kg, a fruit weight per plot reaching 9,40 kg, and a yield potential of 62,68 t/ha, while the application of durian rind fermented organic fertilizer at 5 t/ha shows the best results in the emergence of flowers on tomato plants at 28,18 days. Overall, the application of durian rind fermented organic fertilizer at 25 t/ha provides better results for the growth and yield of tomato plants, making the best choice to achieve maximum tomato plant yield.

Keywords: Durian skin, fermentation, m-bio, poration, tomatoes