

Serapan Fosfor oleh Tanaman Jagung Manis di Latosol dengan Aplikasi Kompos Limbah Media Jamur Tiram

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ABSTRAK

Pemberian bahan organik memberikan dampak pada perbaikan struktur tanah yang tadinya padat dapat berubah menjadi remah, juga dapat memperbaiki sifat kimia tanah terutama serapan unsur P dalam tanah. Penelitian ini bertujuan mengetahui serapan unsur P tanaman Jagung Manis (*Zea mays* var. *saccharata* Sturt) dengan aplikasi kompos limbah media jamur tiram. Penelitian dilakukan dengan menggunakan Rancangan Acak Lengkap (RAL) faktor tunggal yang terdiri dari 6 aras perlakuan. Jagung ditanam didalam ember plastik dengan tanah sebanyak 5 kg setara kering mutlak. Adapun dosis kompos media jamur tiram adalah Tanpa perlakuan K₀: 0, K₁ 250, K₂: 500, K₃: 750, K₄: 1000, K₅: 1250 dalam satuan g/5 kg tanah, penelitian ini dilaksanakan di rumah kaca. Parameter analisis tanah meliputi pH H₂O, P-tersedia, P₂O₅ potensial, C-organik, KPK. Analisis kompos limbah media jamur tiram ialah P₂O₅ potensial dan pH kompos. Parameter pertumbuhan tanaman jagung manis terdiri dari tinggi tanaman, jumlah daun, berat segar tanaman, berat kering tanaman, kadar P jaringan dan serapan P tanaman jagung manis. Pengamatan dan pemanenan tanaman jagung manis dalam penelitian ini dilakukan ketika tanaman berumur 42 HST yaitu sudah mengalami pembungaan (fase vegetatif maksimum). Data dianalisis menggunakan sidik ragam (ANOVA) dan dilanjutkan uji DMRT dengan taraf 5%. Hasil penelitian menunjukkan bahwa, serapan P jaringan tanaman jagung manis dengan penambahan kompos limbah media jamur tiram dosis 1250 g/5kg tanah (K₅) mempunyai nilai serapan P paling tinggi (2,9 g/tanaman) dan mengalami kenaikan sebesar (2,7 g/tanaman) dari tanpa perlakuan (K₀).

Kata Kunci : *jagung manis (Zea mays* var. *saccharata* Sturt), *latosol, limbah media jamur tiram, serapan fosfor*

Phosphorus Uptake by Sweet Corn Plants in Latosol with Application of Oyster Mushroom Media Waste Compost

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ABSTRACT

The application of organic material has an impact on improving the structure of the soil which was previously solid which can turn into crumb, and can also improve the chemical properties of the soil, especially the uptake of P elements in the soil. This research aims to determine the uptake of P elements from sweet corn plants with the application of oyster mushroom media waste compost. The research was conducted using a single factor Completely Randomized Design (CRD) consisting of 6 treatment levels. Corn is planted in a plastic bucket with 5 kg of absolutely dry soil. The dosage for oyster mushroom media compost is without treatment K0: 0, K1 250, K2: 500, K3: 750, K4: 1000, K5: 1250 in units of g/5 kg of soil, this research was carried out in a greenhouse. Soil analysis parameters include pH H₂O, P-available, P₂O₅ potential, C-organic, and KPK. Analysis of oyster mushroom media waste compost is potential P₂O₅ and compost pH. Sweet corn plant growth parameters consist of plant height, number of leaves, plant fresh weight, plant dry weight, tissue P content, and sweet corn plant P uptake. Observation and harvesting of sweet corn plants in this study was carried out when the plants were 42 HST, that is, they were already flowering (maximum vegetative phase). Data were analyzed using analysis of variance (ANOVA) and continued with the DMRT test with a level of 5%. The results of the research showed that the P uptake of sweet corn plant tissue with the addition of oyster mushroom media waste compost at a dose of 1250 g/5kg soil (K5) had the highest P uptake value (2,9 g/plant) and experienced an increase of (2,7 g/plant) from no treatment (K0).

Keywords: *sweet corn (Zea mays var. saccharata Sturt), latosol, oyster mushroom media waste, phosphorus uptake*