

**PENGARUH KOMPOS BUNGKIL NYAMPLUNG YANG DIPERKAYA
TERHADAP PERTUMBUHAN DAN SERAPAN N BIBIT NYAMPLUNG PADA
INCEPTISOL, SLEMAN**

The Effect of Nyamplung Waste Compost Enriched to Growth and Nitrogen Uptake of
Nyamplung Seedlings in Inceptisol, Sleman

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Intisari

Penelitian ini bertujuan untuk mengetahui pengaruh jenis bioaktivator dan pemberian bahan pembenah terhadap kualitas kompos bungkil nyamplung, pertumbuhan bibit nyamplung dan serapan nitrogen pada bibit nyamplung. Rancangan percobaan yang dilakukan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) Faktorial, masing-masing dengan 2 faktor dan 3 ulangan. Faktor pertama adalah jenis bioaktivator yang digunakan untuk pengomposan yaitu Prouponic Gb#1 (B1) dan bioaktivator rumen sapi (B2). Faktor kedua adalah tanpa pemberian bahan pembenah (P1), dengan pemberian dolomit (P2) dan dengan pemberian abu sekam padi (P3). Hasil penelitian menunjukkan bahwa secara keseluruhan perlakuan jenis bioaktivator dan pemberian bahan pembenah tidak memberikan pengaruh beda nyata terhadap kualitas kompos berupa suhu kompos, pH, C-organik, kadar N total, rasio C/N, kadar P total dan kadar K total. Kompos bungkil nyamplung memiliki pH, rasio C/N, kadar N total, kadar P total dan kadar K total yang memenuhi standar SNI. Secara keseluruhan kandungan bahan organik, KPK, N total, amonium dan nitrat tanah yang telah diberi perlakuan bungkil kompos lebih tinggi dibandingkan perlakuan kontrol. Parameter pertumbuhan tanaman pada bungkil nyamplung seperti tinggi tanaman, jumlah daun dan diameter batang pada perlakuan kontrol lebih tinggi dibandingkan dengan perlakuan pemberian kompos bungkil nyamplung. Kadar nitrogen tanaman paling tinggi ada pada perlakuan B1P1. Serapan hara nitrogen pada tanaman tertinggi pada perlakuan B2P1 untuk tajuk dan B1P3 untuk akar.

Kata kunci: kompos, bungkil nyamplung, bahan organik, N total, N tersedia, serapan N bibit nyamplung

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Pengaruh Kompos Bungkil Nyamplung yang Diperkaya terhadap Pertumbuhan dan
Serapan N Bibit Nyamplung pada Inceptisol, Sleman

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Abstract

This study aims to determine the effect of type of bioactivator and application of amandment to the quality of compost nyamplung waste, nyamplung seedling growth and nitrogen uptake in nyamplung seedlings. The research conducted by using completely randomized design (CRD) factorial, each treatments was with two factors and repeated three times. The first factor was the type of bioactivator used for composting were Prouponic Gb # 1 (B1) and bioactivator of rumen (B2). The second factor was giving of material without amandment (P1), with application of dolomitr (P2) and application of rice husk ash (P3). The results showed that the overall of treatment type of bioactivator and application of amandment did not give significant effect on the quality of compost there were compost temperature, pH, organic Carbon, total N content, the ratio of C/N, the content of total P and content of total K. Compost nyamplung waste has C / N ratio, total of N content, the content of total P and content of total K fulfill the SNI standard. Overall organic matter content, KPK, total N, ammonium and nitrate soil that had been treated compost nyamplung waste was higher than the control treatment. Parameter of growing plants on the seedling nyamplung such as plant height, leaf number and stem diameter in the control treatment was higher than treatment compost nyamplung waste. Highest nitrogen levels plants exist at treatment B1P1. Nitrogen nutrient uptake in plants for the highest at canopy B2P1 treatment and B1P3 to the roots.

Keywords: compost, waste nyamplung, organic matter, total N, available N, N uptake nyamplung seed