

INTISARI

Penelitian ini dilakukan di Rumah Kaca Fakultas Pertanian Universitas Gadjah Mada, Yogyakarta. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi dosis vinase dan arang sekam terhadap serapan N, P, K dan pertumbuhan tanaman jagung manis pada Entisol, Sleman, Yogyakarta. Penelitian ini menggunakan Rancangan Acak Lengkap (*Randomized Complete Design*) dengan dua faktor perlakuan dan tiga ulangan. Faktor pertama adalah dosis vinase yaitu vinase dosis 50.000 L/ha, 100.000 L/ha dan 150.000 L/ha. Sedangkan faktor kedua yaitu dosis arang sekam 0 ton/ha, 10 ton/ha dan 15 ton/ha. Analisis data meliputi analisis tanah awal, vinase, arang sekam, tanah akhir, tinggi tanaman, jumlah daun, berat segar trubus, berat kering trubus, berat segar akar, berat kering akar, serta serapan N, P dan K pada trubus. Data hasil analisis tanah dan pengamatan parameter tanaman dianalisis sidik ragam (*analysis of variance*) dan perlakuan yang menunjukkan beda nyata dianalisis dengan menggunakan *Duncan Multiple Range Test* (DMRT) dengan tingkat signifikan 5%. Hasil penelitian menunjukkan bahwa pengaruh kombinasi vinase dosis 150.000 L/ha dan arang sekam dosis 15 ton/ha meningkatkan nitrogen total tanah sebesar 0,12%, kalium tersedia tanah sebesar 1,83 cmol(+)kg⁻¹, nitrogen total trubus sebesar 0,63%, kalium total trubus 3,46%, fosfor trubus sebesar 0,38%, serapan N, P dan K trubus berturut-turut sebesar 8,46 g/tanaman, 5,11 g/tanaman dan 45,52 g/tanaman.

Keyword : Entisol, vinase, arang sekam, tanaman jagung manis.

ABSTRACT

This research was conducted in Green House, Faculty of Agriculture, Universitas Gadjah Mada, Yogyakarta. The purpose was to determine the combinations of dose of vinase and dose of husk charcoal on N, P, K uptake and the growth of sweet corn plants on Entisol soil from Sleman, Yogyakarta. Randomized Complete Design used as statistic method in this research with 2 factors and 3 repeats. The first factor was vinase Dose of vinasse's dosage such as 50.000 L/ha, 100.000 L/ha, and 150.000 L/ha. The second factor was husk charcoal such as 0 ton/ha, 10 tons/ha, and 15 tons/ha. Initial soil analysis, vinase, husk charcoal, final soil analysis, height of plant, number of leaves, weight of fresh tip, weight of dry tip, weight of fresh root, weight of dry root, and N, P, K uptake in tip as data analysis indicators. Result of soil analysis and result of plants analysis used for analysis of variance and treatments that showed significant were analyzed using DMRT (Duncan Multiple Range Test) with a significance level on 5%. The result showed combinations of 150.000 L/ha of vinase and 15 tons/ha of husk charcoal could increase of total of soil nitrogen 0,12%, potassium available of soil 1,83 $\text{cmol}(+)\text{kg}^{-1}$, total nitrogen in tip 0,63%, total potassium in tip 3,46%, phosphate in tip 0,38%, N uptake in tip 8,46 gr/plant, P uptake in tip 5,11 gr/plant, and K uptake in tip 45,52 gr/plant.

Keyword: Entisol, Vinase, Husk Charcoal, Sweet Corn.