ABSTRAK

APLIKASI PUPUK KANDANG AYAM TERHADAP PERTUMBUHAN SEMAI MAHONI DAUN LEBAR (*Swietenia macrophylla* King.) PADA TANAH LATOSOL

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Tanah Latosol memiliki sifat kimia yang buruk seperti kapasitas tukar kation yang rendah, sifat asam basa, dan unsur hara yang rendah. Penggunaan tanah Latosol sebagai media pertumbuhan tanaman hutan perlu adanya pemberian bahan organik seperti pupuk kandang ayam.Tujuan penelitian untuk mengetahui pengaruh aplikasi pupuk kandang ayam terhadap pertumbuhan semai mahoni daun lebar pada tanah Latosol. Penelitian menggunakan rancangan acak lengkap (RAL) dengan 4 perlakuan dan 5 ulangan. Perlakuan terdiri atas: tanah 100%, tanah 90% + pupuk kandang ayam 10%, tanah 80% + pupuk kandang ayam 20%, dan tanah 70% + pupuk kandang ayam 30%. Variabel penelitian meliputi: tinggi semai, diameter batang semai, jumlah daun semai, biomassa semai, nisbah pucuk akar, dan indeks mutu bibit. Analisis data menggunakan sidik ragam dan uji lanjut Beda Nyata Jujur pada taraf nyata 5%. Hasil penelitian menunjukan bahwa parameter tinggi semai, jumlah daun semai, bobot kering pucuk, bobot kering total, nisbah pucuk akar, dan indeks mutu bibit berpengaruh nyata terhadap perlakuan pemberian pupuk kandang ayam. Takaran tanah 90% + pupuk kandang ayam 10% yang paling baik untuk pertumbuhan semai mahoni daun lebar karena berpengaruh nyata terhadap tinggi semai (29,92 cm), jumlah daun semai (15,40 helai), bobot kering pucuk (5,10 g), bobot kering total (7,30 g), nisbah pucuk akar (2,55), dan indeks mutu bibit (0,22).

Kata kunci: pupuk kandang ayam, tanah Latosol, mahoni daun lebar

ABSTRACT

APPLICATION CHICKEN MANURE ON THE GROWTH OF BROADLEAF MAHOGANY SEEDLINGS (Swietenia macrophylla King.) ON LATOSOL SOIL

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Latosol soil has poor chemical properties such as low caption exchange capacity, acid-base properties, and low nutriens. The use of Latosol soil as a growth medium for forest plants requires the provision of organic matter such as chicken manure. The research objective was to determine the application chicken manure of the growth on broadleaf mahogany seedlings on Latosol soil. The experimental units were arranged in completely randomized design with 4 treatments and 5 replications. Treatments consists of: 100% soil, 90% soil + 10% chicken manure, 80% soil + 20% chicken manure, and 70% soil + 30% chicken manure. The Variables observed included: seedlings height, seedlings stem diameter, seedlings number leaves, seedling biomass, root shoot ratio, and seeds quality index. The analysis of variance and honestly significant difference at the significance level of 5% were used to compare the treatment effects. The results showed that the parameters of seedling height, seedlings number leaves, shoot dry weight, total dry weight, shoot root ratio, and seeds quality index had a significant effect on the treatment of chicken manure. Dosage of 90% soil + 10% chicken manure is best for growth broadleaf mahogany seedlings because it has a significant effect on seedling height (29.92 cm), seedling number leaves (15.40 strands), shoot dry weight (5.10 g), total dry weight (7.30 g), shoot-root ratio (2.55), and seeds quality index (0.22).

Keyword: chicken manure, Latosol soil, Swietenia macrophylla