ABSTRACT

This research aimed to analyze and determine the best dose of trichocompost fertilizer for the growth of Bungur (Lagerstroemia speciosa) seedlings on Ultisol, considering the high potential of Bungur plants but the low fertility of Ultisol soil, which requires improvement.

The research method used a Completely Randomized Design (CRD) with 6 treatment levels of trichocompost dosage (t0: 0 g/polybag, t1: 25 g/polybag, t2: 50 g/polybag, t3: 75 g/polybag, t4: 100 g/polybag, t5: 125 g/polybag), replicated 4 times, using a total of 144 seedlings. Variables observed included increases in seedling height, seedling diameter, number of leaves, shoot dry weight, and root dry weight.

The results showed that the application of trichocompost fertilizer had a highly significant effect on all observed growth parameters of Bungur seedlings. Treatment t5 (125g/polybag) yielded the best results for increases in seedling height (14.25 cm), seedling diameter (1.85 mm), number of leaves, shoot dry weight (0.23g), and root dry weight (0.45g). This indicates that trichocompost is effective in increasing nutrient availability and improving the physical, chemical, and biological conditions of Ultisol.

Keywords: Trichocompost, Bungur (Lagerstroemia speciosa), Ultisol, Fertilizer, Growth, Seedling.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis dan mendapatkan dosis terbaik pupuk trichokompos terhadap pertumbuhan bibit bungur (Lagerstroemia speciosa) pada Ultisol, mengingat potensi tanaman bungur yang tinggi namun lahan ultisol memiliki kesuburan rendah dan membutuhkan perbaikan.

Metode penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan 6 taraf perlakuan dosis trichokompos (t0: 0 g/polybag, t1: 25 g/polybag, t2: 50 g/polybag, t3: 75 g/polybag, t4: 100 g/polybag, t5: 125 g/polybag), diulang 4 kali, menggunakan total 144 bibit. Variabel yang diamati meliputi pertambahan tinggi bibit, pertambahan diameter bibit, jumlah daun, berat kering tajuk, dan berat kering akar.

Hasil penelitian menunjukkan bahwa pemberian pupuk trichokompos berpengaruh sangat nyata terhadap semua parameter pertumbuhan bibit bungur yang diamati. Perlakuan t5 (125g/polybag) memberikan hasil terbaik pada pertambahan tinggi bibit (14,25 cm), diameter bibit (1,85 mm), jumlah daun, berat kering tajuk (0,23g), dan berat kering akar (0,45g). Hal ini mengindikasikan bahwa trichokompos efektif meningkatkan ketersediaan unsur hara dan memperbaiki kondisi fisik, kimia, dan biologi ultisol.

Kata Kunci: Trichokompos, Bungur (Lagerstroemia speciosa), Ultisol, Pupuk, Pertumbuhan, Bibit.