INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh dari kombinasi perlakuan frekuensi penyiraman, jenis mulsa, serta pemberian biochar bambu terhadap karakteristik tanah Entisol yang nantinya memengaruhi pertumbuhan tanaman bawang merah. Penelitian dilaksanakan pada bulan Maret hingga September 2023 di Desa Srigading, Kecamatan Sanden, Kabupaten Bantul dan analisis laboratorium dilaksanakan di Laboratorium Tanah Kuningan, Laboratorium Tanah Umum, Laboratorium Kimia dan Kesuburan Tanah, serta Laboratorium Fisika Tanah, Departemen Tanah, Fakultas Pertanian, Universitas Gadjah Mada, Yogyakarta. Penelitian ini disusun dalam Rancangan Petak-Petak Terbagi yang terdiri atas 3 faktor dengan 3 ulangan. Faktor pertama berupa frekuensi penyiraman yang terdiri atas 2 taraf perlakuan yaitu: P1 (penyiraman sehari sekali) dan P2 (empat hari sekali), faktor kedua yaitu jenis mulsa yang terdiri atas 3 taraf perlakuan yaitu: M0 (tanpa mulsa), M1 (mulsa plastik), dan M2 (mulsa jerami), faktor ketiga yaitu dosis biochar bambu yang terdiri atas 2 taraf yaitu: B0 (dosis 0 kg/m^2 atau anpa biochar) dan B1 (dosis 1 kg/m^2). Hasil penelitian menunjukkan frekuensi penyiraman, jenis mulsa, dan pemberian biochar bambu memberikan pengaruh terhadap serapan P umbi dan serapan K umbi, serta meningkatkan pH H$_2$O, pH KCl, C-organik, dan K-tersedia pada pertumbuhan tanaman 50 HST. Perlakuan terbaik dihasilkan pada kombinasi perlakuan P2M2B0.

Kata kunci: Frekuensi penyiraman, mulsa, biochar bambu, Entisol, bawang merah

ABSTRACT

This study aims to determine the effect of watering frequency, type of mulch, and bamboo biochar on the characteristics of Entisol soil which will influence the growth of shallot plants. This research was conducted from March to September 2023 at in Srigading Village, Sanden District, Bantul Regency and laboratory analysis at the Kuningan Soil Laboratory, General Soil Laboratory, Soil Chemistry and Fertility Laboratory, and Soil Physics Laboratory, Soil Department, Faculty of Agriculture, Gadjah Mada University, Yogyakarta. This research was arranged in a split split plot design consisting of 3 factors with 3 replications. The first factor is the frequency of watering which consists of 2 treatment levels, namely: P1 (watering once a day) and P2 (watering once every four days), the second factor is the type of mulch which consists of 3 treatment levels, namely: M0 (without mulch), M1 (plastic mulch), and M2 (straw mulch), the third factor is the dose of bamboo biochar which consists of 2 levels, namely: B0 (0 kg/m2 or without biochar) and B1 (1 kg/m2). The results showed that watering frequency, the application of mulch, and biochar had a significant effect on potassium uptake by tuber and phosphor uptake by tuber, also increasing soil pH, organic carbon, and potassium availability at 50 days. The best result is in the combination of P2M2B0.

Key words: Watering frequency, mulch, bamboo biochar, Entisol, shallot