Intisari

Tanah pasir pantai termasuk dalam kategori tanah marginal yang memiliki ciri kesuburan rendah dan kemampuan menyimpan air rendah. Kacang hijau merupakan salah satu tanaman yang mudah tumbuh dan tidak tergantung pada iklim tertentu dan memperhatikan kecukupan faktor eksternal yang diperlukan seperti air dan hara. Penelitian dilakukan untuk mengetahui pengaruh perlakuan pupuk kandang dan zeolit terhadap sifat kimia tanah, pertumbuhan tanaman, dan serapan hara tanaman kacang hijau. Penelitian dilaksanakan di rumah kaca Kuningan serta uji di laboraturium Fakultas Pertanian Universitas Gadjah Mada. Media tanam diambil dari lahan pasir pantai Samas, Bantul. Rancangan penelitian yang digunakan yaitu Rancangan Acak Lengkap (RAL) faktorial dengan 2 faktor dan 3 ulangan. Pengamatan tanaman dilakukan setiap minggu sampai fase vegetatif maksimum. Perlakuan pupuk kandang dan zeolit menunjukkan adanya interaksi dan perbedaan signifikan pada parameter pH tanah, N-Total, dan K-Tersedia. Parameter daya hantar listrik, bahan organik, KPK, dan P-Tersedia tidak menunjukkan interaksi antar perlakuan namun menunjukkan perbedaan signifikan perlakuan pupuk kandang dan zeolit. Parameter tinggi tanaman, jumlah daun, panjang akar, berat segar, dan berat kering tanaman menunjukkan hasil tertinggi pada perlakuan penambahan pupuk kandang 5 ton/ha dan zeolit 1000 kg/ha. Serapan N, P, dan K pada tanaman menunjukkan perlakuan terbaik yaitu pada pemberian zeolit 1250 kg/ha dengan pupuk 5 ton/ha.

Kata kunci: Entisols, Kacang Hijau, Pupuk Kandang, Zeolit

Abstract

Sandy soil is included in the category of marginal soil which has low fertility and low water storage capacity. Mung bean is a plant that is easy to grow and does not depend on a particular climate and pays attention to the adequacy of the necessary external factors such as water and nutrients. The study was conducted to determine the effect of manure and zeolite treatment on soil chemical properties, plant growth, and nutrient uptake of mung bean. The research was carried out in the Kuningan greenhouse and tested in the laboratory of the Faculty of Agriculture, Gadjah Mada University. The planting medium was taken from the sandy land of Samas beach, Bantul. The research design used was a factorial Completely Randomized Design (CRD) with 2 factors and 3 replications. Plant observations were carried out every week until the maximum vegetative phase. The treatment of manure and zeolite showed significant interactions and differences in the parameters of soil pH, N-Total, and K-Available. The parameters of electrical conductivity, organic matter, KPK, and P-Available did not show interaction between treatments but showed significant differences in the treatment of manure and zeolite. Parameters of plant height, number of leaves, root length, fresh weight, and plant dry weight showed the highest yields in the addition of 5 tons/ha of manure and 1000 kg/ha of zeolite. The uptake of N, P, and K in plants showed the best treatment, namely the application of zeolite 1250 kg/ha with 5 tons/ha fertilizer.

Keywords: *Entisols, Mungbean, Manure, Zeolite*