

INTISARI

Entisols termasuk dalam tanah yang memiliki kesuburan rendah dan kemampuan menyimpan air yang rendah. Kedelai merupakan tanaman yang mudah di budidayakan serta mudah tumbuh di lingkungan mana pun. Penelitian ini dilakukan untuk mengetahui pengaruh perlakuan pembenah tanah seperti biochar sekam padi dan zeolit dan pemupukan (pupuk NPK) terhadap sifat kimia tanah, pertumbuhan tanaman serta serapan NPK pada tanaman kedelai. Penelitian ini dilaksanakan di Kurahan II, Murtigading, Sanden, Bantul serta diuji di laboratorium Fakultas Pertanian, Universitas Gadjah Mada. Media tanam diambil dari lahan pasir pantai Samas, Bantul. Rancangan penlitian yang digunakan yaitu Rancangan Acak Lengkap (RAL) faktorial dengan 2 faktor dan 3 ulangan dengan total 39 unit. Hasil penelitian menunjukkan penambahan perlakuan biochar sekam padi, zeolit dan pupuk NPK dapat menurunkan pH tanah dan meningkatkan P-tersedia. Dosis optimum serapan N, P, dan K pada tanaman menunjukkan perlakuan terbaik yaitu pada perlakuan campuran biochar sekam padi 5 ton/ha dengan pupuk NPK 400 kg/ha dan perlakuan campuran zeolit 7,5 ton/ha dengan pupuk NPK 200 kg/ha.

Kata kunci : biochar sekam padi, zeolit, pupuk NPK, entisols, kedelai.

ABSTRACT

Entisols are included in soils that have low fertility and low water-holding capacity. Soybean is a plant that is easy to cultivate and easy to grow in any environment. This research was conducted to determine the effect of soil ameliorant treatments such as rice husk biochar and zeolite and fertilization (NPK fertilizer) on soil chemical properties, plant growth and NPK uptake in soybeans. This research was conducted in Kurahan II, Murtigading, Sanden, Bantul 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 with a total of 39 units. The results showed that the addition of rice husk biochar, zeolite and NPK fertilizer treatments could reduce soil pH and increase available P. The optimum dose of N, P, and K absorption in plants showed the best treatment, namely the treatment of a mixture of biochar rice husk 5 tons/ha with NPK fertilizer 400 kg/ha and treatment with a mixture of 7.5 tons/ha zeolite with NPK fertilizer 200 kg/ha.

Keywords: rice husk biochar, zeolite, NPK fertilizer, entisols, soybeans

