

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh zeolit dan kompos terhadap sifat kimia tanah, pertumbuhan dan serapan N oleh Sawi Hijau pada Entisol Banguntapan, Bantul, D.I. Yogyakarta. Penelitian rumah kaca ini dirancang secara acak lengkap dengan perlakuan zeolit (0, 10, 15, dan 20 ton/ha), kompos (0, 10, dan 20 ton/ha). Pada semua perlakuan diberikan pupuk urea 250 kg/ha untuk mencegah terjadinya defisiensi hara N. Sebagai tanaman indikator digunakan Sawi Hijau yang ditanam sampai umur 33 HST. Adapun parameter pertumbuhan yang diamati yaitu tinggi, jumlah daun, panjang akar, dan luas daun tanaman. Sedangkan parameter sifat tanah sebelum dan sesudah perlakuan yaitu tekstur, kadar lengas, pH, C-Organik, KPK, K-tersedia, P-Total, dan N-Total. Hasil penelitian menunjukkan bahwa perlakuan kombinasi zeolit dan kompos berpengaruh dalam menaikkan pH, bahan organik, KPK, K-tersedia, ketersediaan N tanah, serapan hara N, serta efisiensi serapan dan efisiensi agronomis pada tanaman sawi hijau. Penggunaan kombinasi zeolit kompos yang sesuai mampu meningkatkan hasil produktivitas tanaman sawi hijau di tanah Entisol.

Kata kunci: entisol, hara N, zeolit, kompos, urea, sawi hijau, serapan N, dosis rekomendasi

ABSTRACT

This research aimed to determine the effect of zeolite and compost on soil chemical properties, growth and N uptake by Mustard Greens in Entisol Banguntapan, Bantul, D.I.Yogyakarta. This greenhouse research was designed in a completely randomized manner with zeolite treatment (0, 10, 15, and 20 ton/ha), compost (0, 10, and 20 ton/ha). All treatments were given 250kg/ha of urea. The treatment in this research applied was a combination of 0 tons/ha, 10 tons/ha, 15 tons/ha, and 20 ton/ha zeolite with compost 0 ton/fertilizer to prevent N deficiency. As an indicator plant, mustard greens were planted until 33 days after plant. The growth parameters observed were height, number of leaves, root length, and leaf area of the plant. While the parameters of soil properties before and after treatment were texture, moisture content, pH, C-Organic, KPK, K-available, P-Total, and N-Total. The results showed that the combined treatment of zeolite and compost had an effect on increasing pH, organic matter, CEC, available K, soil N availability, N uptake, N uptake efficiency, and agronomic efficiency in mustard greens. The use of an appropriate combination of compost zeolite can increase the productivity of mustard greens on Entisol soil.

Keywords: entisol, nutrient N, zeolite, compost, urea, mustard greens, N uptake, recommended dose