

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian zeolit dan asam humat terhadap peningkatan dan perbaikan sifat kimia tanah, serapan hara Nitrogen, dan pertumbuhan vegetatif tanaman sawi hijau pada tanah Entisol Cangkringan, Sleman, Daerah Istimewa Yogyakarta. Pengambilan sampel tanah dilakukan pada awal sebelum perlakuan dan pada saat selesai masa inkubasi. Pengambilan sampel tanaman dilakukan pada masa vegetatif maksimum yaitu 30 HST. Penelitian ini dilakukan di Rumah Kaca Fakultas Pertanian UGM serta Laboratorium Departemen Tanah pada bulan April 2023 – November 2023. Perlakuan yang diaplikasikan adalah pemberian kombinasi zeolit 0 ton/ha, 2.5 ton/ha, 5 ton/ha, dan 7.5 ton/ha dengan asam humat 0 kg/ha, 5 kg/ha, dan 10 kg/ha serta pupuk urea 250 kg/ha pada tanaman sawi hijau. Hasil penelitian menunjukkan bahwa perlakuan kombinasi dosis zeolit dan asam humat berpengaruh dalam menaikkan pH, bahan organik, KPK, ketersediaan N tanah serta serapan hara N pada tanaman sawi hijau.

Kata kunci: zeolit, asam humat, urea, sawi hijau, serapan N, pertumbuhan vegetatif, Entisols

ABSTRACT

This research aims to determine the effect of applying zeolite and humic acid on increasing and improving soil chemical properties, Nitrogen nutrient uptake, and vegetative growth of green mustard plants in Entisols Cangkringan, Sleman, Special Region of Yogyakarta. Soil samples were taken at the beginning before treatment and at the end of the incubation period. Plant samples were taken during the maximum vegetative period, namely 30 HST. This research was conducted in the Greenhouse of the Faculty of Agriculture, Gadjah Mada University and the Laboratory of Soil Science Department in April 2023 – November 2023. The treatment applied was a combination of 0 ton/ha, 2.5 ton/ha, 5 ton/ha, and 7.5 ton/ha zeolite. with humic acid 0 kg/ha, 5 kg/ha, and 10 kg/ha and urea fertilizer 250 kg/ha on green mustard plants. The research results showed that the combined treatment of zeolite and humic acid doses had an effect on increasing pH, organic carbon, cation exchange capacity, nitrogen availability in the soil and nitrogen uptake in green mustard plants.

Key words: zeolite, humic acid, urea, green mustard, nitrogen uptake, vegetative growth, Entisols