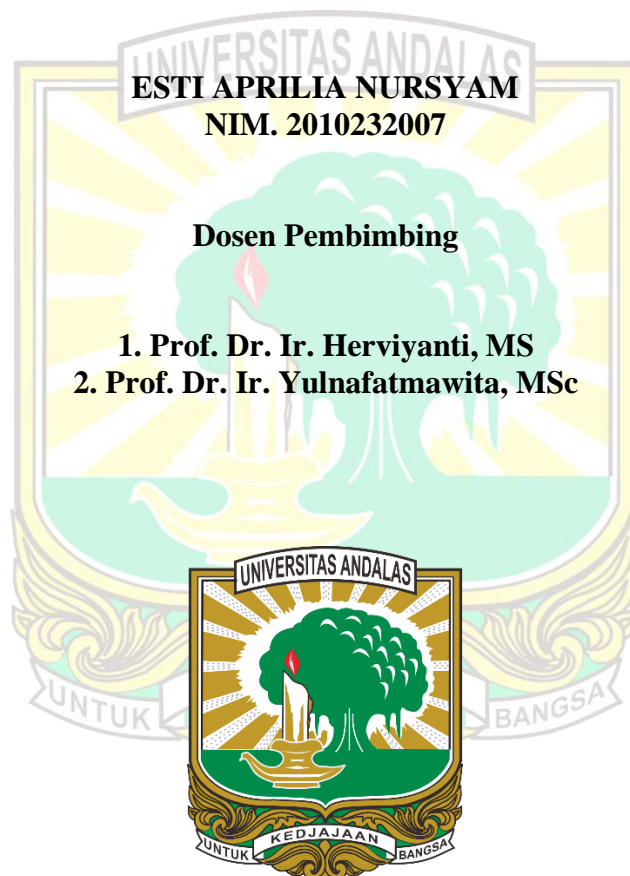


**KAJIAN SIFAT KIMIA INCEPTISOL DENGAN APLIKASI
BEBERAPA JENIS AMELIORAN UNTUK PERTUMBUHAN
DAN PRODUKSI TANAMAN PAPRIKA (*Capsicum annum*)**

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KAJIAN SIFAT KIMIA INCEPTISOL DENGAN APLIKASI BEBERAPA JENIS AMELIORAN UNTUK PERTUMBUHAN DAN PRODUKSI TANAMAN PAPRIKA (*Capsicum annum*)

ABSTRAK

Kecamatan Banuhampu merupakan salah satu daerah sentra produksi pertanian tanaman hortikultura dengan tanah berordo Inceptisol. Akan tetapi, sebahagian Inceptisol memiliki kandungan bahan organik rendah (2-3%) menyebabkan kualitas fisik, kimia, dan biologi tanah kurang baik sehingga menyebabkan tanaman tidak tumbuh dengan optimal. Penelitian ini bertujuan untuk mendapatkan jenis dan formulasi amelioran yang terbaik terhadap pertumbuhan dan produksi tanaman paprika pada Inceptisol. Penelitian ini dilaksanakan dari bulan Januari sampai Juni di Laboratorium Kimia Tanah Fakultas Pertanian, Universitas Andalas. Amelioran yang digunakan yaitu pupuk hijau tironia (PHT), pupuk kandang ayam (PKA), kompos, biochar bambu (BB) baik tunggal maupun kombinasi dari bahan tersebut. Ada 8 (delapan) perlakuan (Kontrol, PHT 10 ton/ha, PKA 10 ton/ha, kompos 10 ton/ha, BB 10 ton/ha, kompos 5 ton/ha + BB 5 ton/ha, kompos 3,3 ton/ha + PHT 3,3 ton/ha + PKA 3,3 ton/ha, kompos 2,5 ton/ha + PHT 2,5 ton/ha + PKA 2,5 ton/ha + BB 2,5 ton/ha) dengan 3 (tiga) ulangan. Unit percobaan dialokasikan di rumah kawat Universitas Andalas menurut rancangan acak lengkap (RAL). Parameter yang dianalisis yaitu pH, P-tersedia, C-organik, N-total, KTK, K, Ca, dan Mg. Hasil penelitian menunjukkan bahwa pengaplikasian amelioran mampu menaikkan nilai pH sebesar 0,30 unit, P-tersedia sebesar 10,46 ppm, C-organik sebesar 1,01%, N-total sebesar 0,16%, KTK sebesar 6,16 cmol/kg, K-dd sebesar 0,30 cmol/kg, Ca-dd sebesar 0,65 cmol/kg, dan Mg-dd sebesar 1,22 cmol/kg, tinggi tanaman sebesar 18 cm, angkutan hara N sebesar 5,03 g/pot, P sebesar 2,56 g/pot, K sebesar 6,80 g/pot, bobot segar buah sebesar 56 g/pot, dan tebal daging buah sebesar 1,30 mm. Pemberian perlakuan Kompos + BB + PHT + PKA masing-masing 2,5 ton/ha merupakan pengaplikasian yang optimal dan efisien dalam meningkatkan pertumbuhan dan produksi tanaman paprika pada Inceptisol.

Kata Kunci: Amelioran, Banuhampu, Inceptisol, Paprika (*Capsicum annum*).

CHEMICAL FEATURE EXAMINATION OF INCEPTISOL WITH APPLICATION OF MULTIPLE TYPES OF AMELIORANTS FOR CHICKEN (*Capsicumannum*) GROWTH AND PRODUCTION

ABSTRACT

Banuhampu sub-district is one of the agricultural production centers for horticultural crops with the soil order is Inceptisol. However, some Inceptisols have low organic matter content 2-3%, causing the physical, chemical, and biological quality of the soil to be poor, causing crops cannot grow well. This study was aimed to obtain the best type and formulation of ameliorants for the growth and production of bell pepper crops on Inceptisol. This research was conducted from January to June 2024 at the Faculty of Agriculture Laboratory, Andalas University. The ameliorants used were green manure (PHT), manure (PKA), compost, and bambu biochar (BB), either as each or combination among the ameliorants. There were 8 (eight) treatments (Kontrol, PHT 10 ton/ha, PKA 10 ton/ha, compost 10 ton/ha, BB 10 ton/ha, compost 5 ton/ha + BB 5 ton/ha, compost 3,3 ton/ha + PHT 3,3 ton/ha + PKA 3,3 ton/ha, compost 2,5 ton/ha + PHT 2,5 ton/ha + PKA 2,5 ton/ha + BB 2,5 ton/ha) with 3 (three) replications. The experimental units were allocated based on Completely Randomized Design (CRD) in glass house at Universitas Andalas. The parameters analyzed were soil pH, available-P, organic-C, total-N, CEC, exchangeable-K, exchangeable-Ca, and exchangeable-Mg. The results showed that the application of ameliorants was able to increase the pH value by 0.30 units, P-available by 10.46 ppm, organic-C by 1.01%, total-N by 0.16%, CEC by 6.16 cmol/kg, exchangeable-K by 0.30 cmol/kg, exchangeable-Ca by 0.65 cmol/kg, and exchangeable-Mg by 1.22 cmol/kg, plant height by 18 cm, N nutrient transport by 5.03 g/pot, P by 2.56 g/pot, K by 6.80 g/pot, fresh weight of fruit by 56 g/pot, and fruit flesh thickness of 1.30 mm. The application of Kompost + BB + PHT + PKA for 2,5 ton/ha each was found to be an optimal and efficient application in increasing the growth and production of bell pepper at Inceptisol.

Keywords: Ameliorant, Banuhampu, Bell Pepper, Inceptisol.