

KAJIAN KARAKTERISTIK VERMIKOMPOS SERBUK GERGAJI DAN PENGARUHNYA TERHADAP SIFAT KIMIA ULTISOL DI LIMAU MANIS PADANG

ABSTRAK

Penelitian tentang “Kajian Karakteristik Vermikompos Serbuk Gergaji Dan Pengaruhnya Terhadap Sifat Kimia Ultisol Di Limau Manis Padang” telah dilakukan dari bulan April sampai November 2015. Pembuatan verмикompos dilakukan di Jundul Rawang Kota Padang serta analisis bahan dasar, verмикompos dan tanah di Laboratorium Jurusan Tanah, Fakultas Pertanian Universitas Andalas Padang. Penelitian ini bertujuan untuk mengidentifikasi karakteristik verмикompos (kadar air, pH, N, P, K, C, S, Mg, dan Ca) dan pengaruhnya terhadap sifat kimia Ultisol. Penelitian ini merupakan percobaan pot dengan Rancangan Acak Lengkap terdiri dari 5 perlakuan dan 3 ulangan. Sebagai perlakuan adalah dosis verмикompos terdiri dari 0 ton/ha, 5 ton/ha, 10 ton/ha, 15 ton/ha dan 20 ton/ha. Data dianalisis dengan Uji F pada taraf 5% dan 1%, apabila hasilnya berbeda nyata dilakukan uji lanjut DNMRT. Hasil penelitian menunjukkan bahwa verмикompos memiliki kadar air 109,22 %, C-total 28,89 %, N-total 1,24 %, P-total 0,89 %, K-total 1,13 %, Ca-total 0,90 %, Mg-total 0,91 % dan S-total 0,20 % serta nisbah C/N 23,30, C/P 32,46 dan C/S 138,25. Pemberian verмикompos ke tanah dengan dosis 0, 5, 10, 15 dan 20 ton/ha memberikan pengaruh terhadap pH, C-organik, Ca-dd, dan Mg-dd tanah. Namun tidak memberikan pengaruh terhadap P-tersedia, N-total, Kapasitas Tukar Kation tanah, K-dd tanah dan Al-dd tanah. Peningkatan pH, C-organik dan Ca-dd tanah meningkat sampai pemberian verмикompos dengan dosis 20 ton/ha, dan Mg-dd tanah meningkat sampai pemberian verмикompos dengan dosis 15 ton/ha.

Kata kunci: Limau Manis Padang, sifat kimia Ultisol, serbuk gergaji, verмикompos



STUDY ON CHARACTERISTICS OF SAWDUST VERMICOMPOST AND THE EFFECT ON CHEMICAL PROPERTIES OF ULTISOL LIMAU MANIS PADANG

ABSTRACT

A research on "Characteristics of Sawdust Vermicompost and the Effect on Chemical Properties of Ultisol Limau Manis Padang" was conducted in Jondul Rawang, and at soil Laboratory, Faculty of Agriculture, Andalas University, Padang from April to November 2015. The objectives of the research were to identify the characteristics (soil moisture, pH, N, P, K, C, S, Mg, and Ca) of sawdust vermicompost and their effects on the chemical characteristics of Ultisol. The research was in form of pot experiment consisted of 5 treatments and 3 replications. The experimental units were allocated in completely randomized design. The treatment were 0, 5, 10, 15 and 20 ton/ha vermicompost. Data resulted were analyzed using F test at 5% and 1% level of significance, if the $F_{calc} > F_{table}$ then the test was continued using DNMRT. The results showed that the vermicompost had soil moisture 109.22%, total-C 28.89%, total-N 1.24%, total-P 0.89%, total-K 1.13%, total-Ca 0.90%, total-Mg 0.91%, total-S 0.20% as well as C/N ratio 23.30, C/P 32.46 and C/S 138.25. The vermicompost applied to the soil affected soil pH, organic carbon, Ca-exch, and Mg-exch. But it did not affect the available-P, total-N, CEC, K-exch and Al-exch. Soil pH, organik carbon, and Ca-exch increased by increasing vermicompost applied from 0 to 20 ton/ha, while Mg-exch from 0 to 15 ton/ha.

Keywords: chemical properties of Ultisol, Limau Manis Padang, sawdust, vermicompost

