

**PENGARUH TIPE PENGGUNAAN LAHAN TERHADAP
SIFAT KIMIA TANAH DI KENAGARIAN TARAM
KABUPATEN LIMAPULUH KOTA**

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Abstrak

Penelitian tentang pengaruh tipe penggunaan lahan terhadap sifat kimia tanah telah dilaksanakan di Kenagarian Taram Kabupaten Limapuluh Kota sejak bulan Februari 2016 sampai Mei 2016. Tujuan penelitian ini adalah untuk mengkaji pengaruh keragaman sifat kimia tanah yang dipengaruhi oleh perbedaan tipe penggunaan lahan, yaitu hutan, pinus dan kakao. Penelitian dilaksanakan menggunakan metode survai. Sampel tanah diambil pada kedalaman 0-20 dan 20-40 cm dengan tiga kali ulangan pada masing-masing penggunaan lahan. Analisis kimia tanah dilakukan di Laboratorium Kimia Tanah, Fakultas Pertanian, Universitas Andalas, Padang. Parameter yang diamati meliputi: kadar air, BV dan TRP (Metode gravimetri), Tekstur (Metode pipet dan ayakan), pH H₂O (Metode pH meter), Al-dd (Metode volumetrik), C-organik (metode Walkley and Black), N-Total (Metode Kjehdhal), P-tersedia (Metode Bray-II), KTK, Ca-dd, Mg-dd, K-dd, dan Na-dd (Metode pencucian menggunakan Ammonium Asetat 1 N pH 7). Hasil penelitian menunjukkan adanya perbedaan sifat kimia tanah antara penggunaan lahan hutan pinus, kakao. Penggunaan lahan pinus memiliki C-organik, N-Total, P-tersedia, KTK, K-dd, Ca-dd, Mg-dd, Na-dd yang lebih rendah serta BV dan fraksi liat yang lebih tinggi dibandingkan hutan. Tanah dibawah penggunaan lahan kakao lebih rendah dibandingkan pinus, terutama pada kandungan kadar air tanah, C-organik, N-total, KTK, kation basa-dd (K, Ca dan Mg), kemudian BV, Al-dd dan Kejenuhan Al yang lebih tinggi. Sifat kimia tanah ketiga penggunaan lahan lapisan 20-40 lebih tinggi dibandingkan 0-20, kecuali pH, BV, KB dan Na-dd tanah. Keragaman sifat kimia tanah penggunaan lahan pinus dan kakao yang signifikan terhadap hutan lebih banyak dijumpai pada kedalaman 0-20 cm.

Kata kunci: penggunaan lahan, perubahan penggunaan lahan, degradasi kimia tanah, konversi hutan



EFFECT OF LAND USE TYPES ON SOIL CHEMICAL PROPERTIES IN KENAGARIAN TARAM LIMAPULUH KOTA REGENCY

Abstract

A study about effect of land use types on soil chemical properties was conducted in Kenagarian Taram, District Harau, Limapuluh Kota Regency since February to May 2016. The main objective of this research was to assess variability of soil chemical properties that are affected by different land use, especially forest, pine and cacao. The study used survey method. Soil sampling was taken at layer 0-20 and 20-40 cm depth with three replicates for each land use. Soil chemical analysis was conducted in the Laboratory of Soil Chemistry, Faculty of Agriculture, Andalas University, Padang. Parameters analyzed were: Soil water content, bulk density and total porosity (gravimetric method), Texture (pipette and sieve), pH (pH meter), Exchangeable Al (Volumetric), organic C (Walkley and Black method), Total N (Kjedhal method), Available P (Bray-II method), CEC, exchangeable Ca, Mg, K, and Na (Leaching method using Ammonium Acetate 1 N pH 7). The results showed that there were some differences in soil chemical properties among pine, cacao and forest land use. Soil under pine land use had lower organic C, total N, available P, CEC, exch-K, -Ca, -Mg and -Na, then higher bulk density and clay than those at forest. Soil chemical properties under cacao were lower than those under pine land use, especially in the soil water content, organic C, total N, CEC, exch-basic cations (K, Ca and Mg) and higher bulk density, exch-Al and Al-saturation. Nutrient compounds in each land use at 0-20 cm soil layer were actually higher than 20-40 cm, except soil pH, bulk density, base saturation and exch. Na. Variability of soil chemical in pine and cacao land use was significantly difference from those at forest commonly found at 0-20 cm soil layer.

Keywords: land use, land use change, soil chemical degradation, forest conversion.