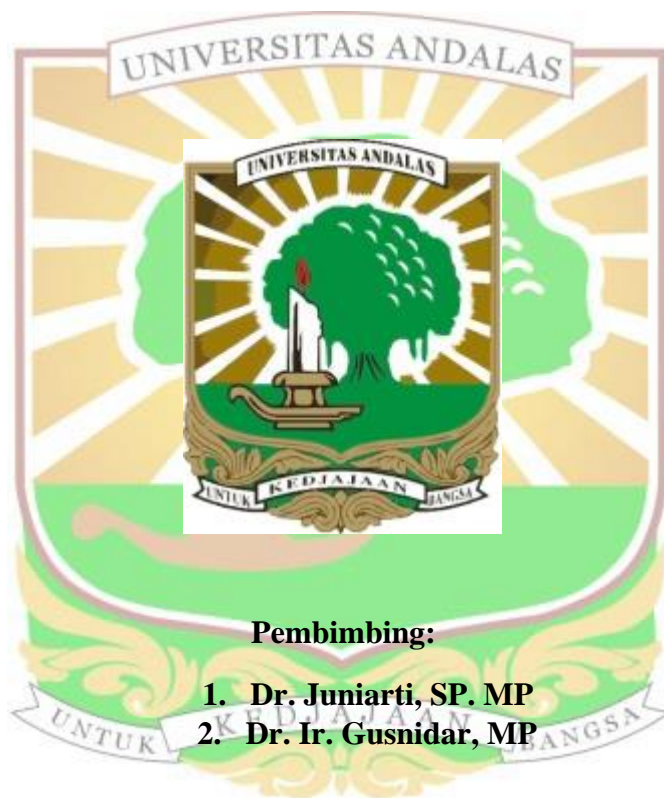


**IDENTIFIKASI KARBON ORGANIK TANAH DAN SUHU
PERMUKAAN TERHADAP BEBERAPA CIRI FISIKA DAN
KIMIA TANAH PADA BEBERAPA PENGGUNAAN LAHAN
DI NAGARI PADANG LAWEH KABUPATEN SIJUNJUNG**

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PADANG
2020**

IDENTIFIKASI KARBON ORGANIK TANAH DAN SUHU PERMUKAAN TERHADAP BEBERAPA CIRI FISIKA DAN KIMIA TANAH PADA BEBERAPA PENGGUNAAN LAHAN DI NAGARI PADANG LAWEH KABUPATEN SIJUNJUNG

ABSTRAK

Nagari Padang Laweh terletak di Kecamatan Koto VII Kabupaten Sijunjung, Sumatera Barat memiliki luas 1.569,92 ha, didominasi oleh penggunaan lahan kebun campuran, kebun karet, dan sawah. Tujuan penelitian untuk mengidentifikasi kandungan karbon organik tanah dan suhu permukaan serta beberapa ciri fisika dan kimia tanah pada beberapa penggunaan lahan di Nagari Padang Laweh Kecamatan Koto VII Kabupaten Sijunjung. Penelitian dalam bentuk survei ini terdiri dari 5 tahap yaitu persiapan, prasuvei, survei utama, analisis tanah di laboratorium dan pengolahan data. Pengambilan sampel tanah dan pengukuran suhu berdasarkan satuan lahan (SL) secara *purposive* dengan pengambilan *random sampling*. Berdasarkan peta satuan lahan, terdapat sebanyak 14 satuan lahan. Parameter yang diamati meliputi suhu permukaan tanah dan sifat kimia tanah. Sifat fisika dan kimia tanah yang diuji terdiri dari BV, tekstur, pH, C-organik, C-organik partikulat, N-total, KTK, P-tersedia, K-dd, Ca-dd, Mg-dd, dan Na-dd. Hasil penelitian menunjukkan bahwa kandungan karbon organik tanah tertinggi di kebun karet pada Inceptisols dengan lereng 8-15% sebesar 4,29% dengan suhu permukaan 31° C, bahan organik partikulat 1,75%, tekstur liat, pH 5,03, N-total 0,04%, P-tersedia 6,32 ppm, KTK 15,96 me/100 g, kejenuhan basa 49,76%, dan terendah di kebun karet pada Ultisols dengan lereng >40% sebesar 1,71% dengan suhu permukaan 28° C, C-organik partikulat 0,30%, tekstur liat, pH 5,71, N-total 0,03%, P-tersedia 5,62 ppm, KTK 11,31 me/100 g, kejenuhan basa 32,66%. Kandungan karbon organik tanah semakin menurun dengan bertambahnya kelerengan.

Kata Kunci: Karbon Organik Tanah, Padang Laweh, Penggunaan Lahan, Suhu Permukaan.

IDENTIFICATION OF SOIL ORGANIC CARBON AND SURFACE TEMPERATURE AS WELL AS SOME SOIL CHEMICAL AND SOIL PHYSICAL PROPERTIES UNDER SEVERAL TYPES OF LAND USE IN NAGARI PADANG LAWEH, SIJUNJUNG DISTRICT

ABSTRACT

Nagari Padang Laweh located in Koto VII District, Sijunjung Regency, West Sumatra has 1,569.92 ha of the total area which was dominated by mixed farming, rubber plantation, and rice fields types of land use. The purpose of this study was to identify soil organic carbon content and surface temperature on some physical and chemical characteristics of soil under several types of land uses in Nagari Padang Laweh, Koto VII District, Sijunjung Regency. The study was conducted using survei method consisting of 5 stages, namely preparation, pre-survey, main survey, soil analysis in the laboratory, and data processing. Soil sampling and land surface temperature were identified based on land unit (LU). Based on the land unit map, there are 14 land units. Soil samples were randomly taken from each LU. The parameters observed included soil surface temperature, soil physical and chemical properties. The physical and chemical properties of the soil tested consisted of BD, texture, pH, organic C, particulate organic C, total N, CEC, available-P, K-exch, Ca-exch, Mg-exch, and Na-exch. The results showed that the highest soil organic carbon (SOC) content (2.49%) was found under rubber plantation on Inceptisols with a slope of 8-15%, land surface temperature of 31° C, particulate organic carbon (POC) 1.75%, texture clay, pH 5.03, total N 0.04%, P-available 6.32 ppm, CEC 15.96 cmol/kg, and base saturation 49.76%. The lowest SOC content (1.71%) was also in rubber plantation on Ultisols with slopes >40%, land surface temperature 28° C, POC 0.30%, texture clay, pH 5.71, total N 0.03%, P-available 5.62 ppm, CEC 11.31 cmol/kg, base saturation 32.66%. Soil organic carbon content decreases with increasing slope.

Keyword: Land uses, Padang Laweh, Soil organic carbon, Surface temperature