

**STUDI AIR TERSEDIA PADA BERBAGAI PENGGUNAAN LAHAN
PERTANIAN LAHAN KERING DI KENAGARIAN SUNGAYANG
KABUPATEN TANAH DATAR**

SKRIPSI

Oleh:



**PROGRAM STUDI ILMU TANAH
FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
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ABSTRAK

Penelitian ini bertujuan untuk mengkaji air tersedia pada berbagai tipe penggunaan lahan pertanian lahan kering di Kenagarian Sungayang, Kabupaten Tanah Datar. Penelitian ini dilaksanakan pada bulan Agustus 2020 sampai dengan Januari 2021. Penelitian dilakukan dengan metode survei dan pengambilan sampel tanahnya dilakukan secara purposive sampling berdasarkan tipe penggunaan lahan (hutan masyarakat, semak belukar, tanaman semusim, dan tegalan) pada kelerengan (0-8%) dan jenis tanah (Inceptisols). Pada setiap penggunaan lahan, sampel tanah diambil secara acak pada 3 titik, 2 kedalaman, dan 2 ulangan. Analisis sampel tanah dilakukan di Laboratorium Fisika dan Kimia Tanah, Fakultas Pertanian, Universitas Andalas, Padang dan Laboratorium Balai Penelitian Tanah, Bogor. Parameter yang dianalisis adalah tekstur tanah, berat isi tanah, total ruang pori tanah, bahan organik tanah, permeabilitas tanah, kadar air tanah, dan daya pegang air tanah (pF). Hasil penelitian menunjukkan bahwa kadar air tersedia tanah tertinggi (17,9% volume) terdapat pada penggunaan lahan tanaman semusim pada kedalaman tanah 0-20 cm, sedangkan kadar air tersedia terendah (12,0% volume) terdapat pada penggunaan lahan kering pada Kedalaman tanah 20-40 cm. Hasil penelitian juga menunjukkan bahwa ketersediaan air tanaman dipengaruhi oleh tekstur tanah dan bahan organik tanah. Tekstur tanah yang didapatkan yaitu lempung dan liat berdebu dengan nilai kandungan bahan organik berkisar antara 3,19 hingga 16,26%.

Kata kunci: *Lahan kering, tipe penggunaan lahan, air tersedia.*



STUDY OF WATER AVAILABLE ON VARIOUS DRY LAND AGRICULTURAL LAND USES IN SUNGAYANG VILLAGE TANAH DATAR CITY

ABSTRACT

This study was aimed to examine the water available in various types of agricultural land use in Sungayang Village, Tanah Datar Regency. This research was carried out from August 2020 to January 2021. It was conducted using a survey method in soil which soil sampling was taken by purposive sampling based on land use types (community forest, shrubs, seasonal crops, and dryland fields) at the same slope (0-8%) and soil type (Inceptisols). At each land use, soil samples were randomly taken at 3 points, 2 depths, and 2 replications. Soil sample analysis was conducted at the Laboratory of Soil Physics and Chemistry, Faculty of Agriculture, Andalas University, Padang and the Laboratory of Soil Research Institute, Bogor. Parameters analyzed were soil texture, soil bulk density, total soil pore space, soil organic matter, soil permeability, soil moisture content, and soil water holding capacity (pF). The results showed that the highest available soil water content (17.9% volume) was found in the land use of seasonal crops at 0-20 cm soil depth, while the lowest available water content (12.0% volume) was found in dry land use on 20-40 cm soil depth. The results also showed that the plant available water was influenced by soil textures and soil organic matter. The soil textures obtained were clay and silty clay with the value of organic matter content ranged from 3.19 to 16.26%.

Keywords: *Dry land, land use type, plant available water.*