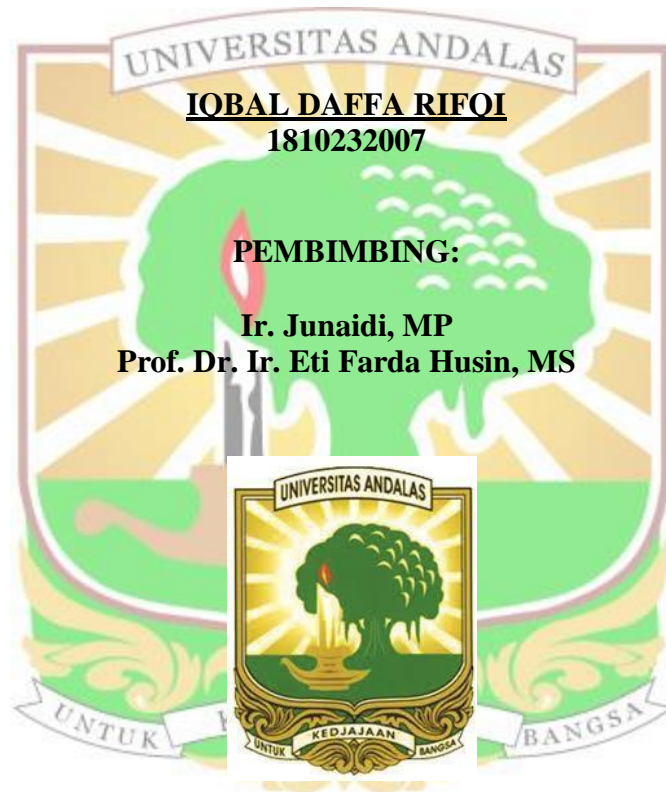


**KAJIAN SIFAT FISIKA TANAH PADA BEBERAPA KELAS
LERENG LAHAN SERAI WANGI (*Cymbopogon nardus*) DI DESA
BALAI BATU SANDARAN KECAMATAN BARANGIN KOTA
SAWAHLUNTO**

SKRIPSI

Oleh:



**PROGRAM STUDI ILMU TANAH
DEPARTEMEN ILMU TANAH DAN SUMBER DAYA LAHAN
FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2022**

KAJIAN SIFAT FISIKA TANAH PADA BEBERAPA KELAS LERENG LAHAN SERAI WANGI (*Cymbopogon nardus*) DI DESA BALAI BATU SANDARAN KECAMATAN BARANGIN KOTA SAWAHLUNTO

ABSTRAK

Penelitian sifat fisika tanah pada tiga kelas lereng di lahan serai wangi telah dilaksanakan di Desa Balai Batu Sandaran, Kecamatan Barangin, Kota Sawahlunto dari bulan Januari – Juni 2022. Penelitian ini bertujuan untuk mengkaji sifat fisika tanah pada beberapa kelas lereng lahan serai wangi di Desa Balai Batu Sandaran, Kecamatan Barangin, Kota Sawahlunto. Penelitian ini dilakukan dengan menggunakan metode survei. Pengambilan sampel tanah dilakukan secara *purposive sampling* pada tiga kelas lereng (agak curam, curam, sangat curam) pada kedalaman 0 – 20 cm dan 20 – 40 cm. Hasil penelitian menunjukkan bahwa daerah penelitian memiliki kelas tekstur tanah lempung liat berdebu, liat berdebu, dan liat. Bahan organik tanah tergolong rendah hingga sedang (6.04 – 2.84 %), berat volume tanah tergolong sedang (0.68 - 1.12 g/cm³), total ruang pori tanah tergolong sedang (74.23 – 57.58 %), Permeabilitas tanah tergolong agak rendah hingga sedang (5.23 – 1.66 cm/jam), indeks stabilitas agregat tanah tergolong kurang mantap hingga agak mantap (60.30 – 43.26%). Berdasarkan hasil penelitian yang telah dilaksanakan di Desa Balai Batu Sandaran Kecamatan Barangin Kota Sawahlunto disarankan kepada pengelola lahan serai wangi untuk meningkatkan sifat fisika tanah lahan serai wangi pada kelas lereng 25-45% dan >45% seperti penambahan pupuk organik pada masa pengolahan tanah.

Kata kunci: Sifat Fisika Tanah, Kelas Lereng, Lahan serai wangi.

STUDY ON SOIL PHYSICAL PROPERTIES AT SOME SLOPES UNDER LEMONGRASS (*Cymbopogon nardus*) PLANTATION IN BALAI BATU SANDARAN VILLAGE, BARANGIN DISTRICT, SAWAHLUNTO CITY

ABSTRACT

A research on soil physical properties at three slope levels under lemongrass cultivation was conducted in Balai Batu Sandaran Village, Barangin District, Sawahlunto City from January to June 2022. This research was aimed to analyze soil physical properties at some slopes under lemongrass cultivation in Balai Batu Sandaran Village, Barangin District, Sawahlunto City. The research employed survey method, the soil samples were taken based on purposive sampling from three slope levels (moderately steep, steep, very steep) at depths of 0 – 20 cm and 20 – 40 cm. The results showed that the study area had silty clay loam, silty clay, and clay soil texture. The soil organic matter was categorized into low to moderate (6.04 – 2.84 %), the soil bulk density was moderate (0.68 - 1.12 g cm⁻³), the total pore space was moderate (74.23 – 57.58 %), the soil permeability was rather slow to moderate (5.23 – 1.66 cm h⁻¹), soil aggregate stability was less stable to rather stable (60.30 – 43.26%). Based on the data resulted, it was suggested to improve the soil physical properties through applying organic matter to the soil.

Keywords: Soil physical properties, slope class, lemongrass land

