

**KAJIAN SIFAT FISIKA TANAH PADA BEBERAPA KELAS
LERENG DI DUA KABUPATEN BUDIDAYA BAWANG PUTIH
(*Allium sativum* L) DI SUMATERA BARAT**

SKRIPSI



**FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2022**

**KAJIAN SIFAT FISIKA TANAH PADA BEBERAPA KELAS
LERENG DI DUA KABUPATEN BUDIDAYA BAWANG PUTIH
(*Allium sativum* L) DI SUMATERA BARAT**

ABSTRAK

Dalam rangka meningkatkan swasembada bawang putih, pemerintah Sumatera Barat serius mendorong petani untuk menanam bawang putih diantaranya di Kabupaten Solok dan Agam. Penelitian ini bertujuan untuk menganalisis sifat fisika tanah pada beberapa kelas lereng yang ditanami bawang putih di dua Kabupaten di Sumatera Barat. Metoda yang digunakan dalam penelitian ini adalah metode survei. Pengambilan sampel tanah dilakukan secara purposive sampling pada beberapa kelas lereng (datar, landai, dan agak curam) pada kedalaman 0-30 cm. Sifat fisika tanah dianalisis di Laboratorium Fisika Tanah Fakultas Pertanian Universitas Andalas Padang. Parameter sifat fisika tanah yang dianalisis yaitu tekstur, BV, TRP, BO, Indeks stabilitas agregat, permeabilitas, dan pF. Hasil penelitian menunjukkan bahwa sifat fisika tanah pada lahan penanaman bawang putih pada kedua Kabupaten dan tiga kelas lereng tidak jauh berbeda, terutama tekstur tanah termasuk kelas (lempung – lempung berliat), berat volume ($0,78 - 0,96 \text{ g/cm}^3$) dan total ruang pori (64 – 71 % vol) tergolong sedang, permeabilitas tanah (5,72 – 10,12 cm/jam) tergolong sedang sampai agak cepat, indeks stabilitas agregat tanah (46,59 – 51,71 %) tergolong kurang sampai agak mantap, sedangkan kandungan bahan organik tanah (5,22 - 17,56 %) tergolong sedang sampai tinggi, pori air tersedia (13,35 – 25,30 % vol) termasuk sedang sampai sangat tinggi.

Kata kunci : Bawang Putih, Kelas Lereng, Sifat Fisika Tanah



STUDY ON SOIL PHYSICAL PROPERTIES AT SEVERAL SLOPE CLASSES IN TWO REGIONAL OF GARLIC CULTIVATION (*Allium sativum L*) IN WEST SUMATERA

ABSTRACT

In order to increase self-sufficiency of garlic, West Sumatera government encourages farmers to plant garlic, especially in Solok and Agam Regency. This research was aimed to analyze the physical properties of the soil on several slopes classes planted with garlic in two regions in West Sumatera. The method used in this study was survey method. Soil sampling was taken based on purposive sampling on several slope classes (flat, slope, and slightly steep) at 0-30 cm soil depth. The soil physical properties were analyzed in the Soil Physics Laboratory of the Faculty of Agriculture, Andalas University Padang. The parameters analyzed were soil texture, BD, TSP, organic matter, aggregate stability index, permeability, and pF. The results showed that the physical properties of the soil on garlic cultivation in two districts and three classes of slopes were not so different, especially the texture of the soil was classified as loam – clay loam, bulk density (0.78 - 0.96 g / cm³) and the total soil pore (64 - 71% vol) were classified as moderate, soil permeability (5.72 - 10.12 cm/jam) was moderate to relatively fast, the soil aggregate stability index of soil aggregate (46.59 - 51.71 %) was relatively less to slightly steady, while the content of soil organic matter (5.22 -17.56 %) was classified as moderate to high, and the plant available water (13.35 - 25.30 % vol) was considered high.

Keywords: Garlic, Slope Class, Soil Physical Properties.



