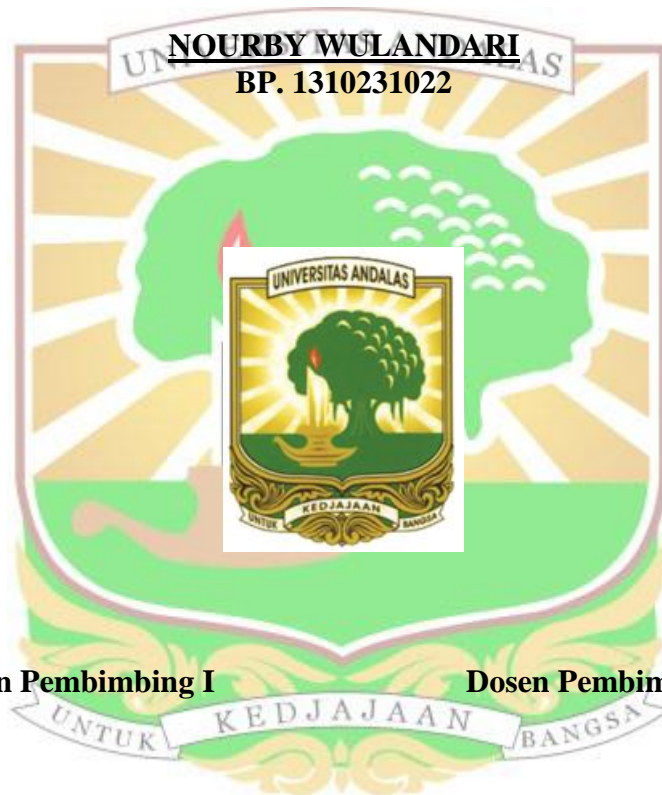


**KAJIAN SIFAT FISIKA 3 ORDO TANAH  
PADA PERKEBUNAN KELAPA SAWIT RAKYAT  
DI KECAMATAN TIMPEH KABUPATEN DHARMASRAYA**

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# **KAJIAN SIFAT FISIKA 3 ORDO TANAH PADA PERKEBUNAN KELAPA SAWIT RAKYAT DI KECAMATAN TIMPEH KABUPATEN DHARMASRAYA**

## **ABSTRAK**

Kecamatan Timpeh merupakan daerah sentra perkebunan kelapa sawit yang ada di kabupaten Dharmasraya Provinsi Sumatera Barat yang dikelola sebagian besarnya oleh masyarakat sendiri dan memiliki 3 ordo tanah berbeda. Penelitian ini mengenai kajian sifat fisika 3 ordo tanah pada perkebunan kelapa sawit rakyat di Kecamatan Timpeh Kabupaten Dharmasraya Provinsi Sumatera Barat telah dilaksanakan dari bulan Mei sampai Desember 2017. Penelitian ini bertujuan untuk mengetahui sifat fisika 3 ordo tanah yang berbeda pada perkebunan kelapa sawit rakyat di Kecamatan Timpeh Kabupaten Dharmasraya. Penelitian ini menggunakan metoda survei, sampel tanah diambil berdasarkan “*stratified random sampling*” berdasarkan proporsional luas. Setiap 500 Ha lahan kelapa sawit umur yang sama (22 tahun) dan kelerengan yang sama pula (0-8%) 1 titik sampel tanah yang mewakili setiap ordo tanah. Ada 3 ordo tanah pada perkebunan kelapa sawit milik rakyat ini, yaitu Ultisol, Inceptisol dan Oxisol. Parameter sifat fisika tanah yang dianalisis yaitu tekstur, bahan organik, indeks stabilitas agregat, berat volume, total ruang pori dan permeabilitas tanah. Hasil penelitian menunjukkan adanya keberagaman sifat fisika tanah yang ditanami kelapa sawit pada 3 ordo tanah yang berbeda. Kandungan bahan organik tanah lahan kelapa sawit cenderung menurun seiring peningkatan kedalaman pada seluruh ordo tanah. Tekstur tanah ordo Inceptisol memiliki kelas lempung berpasir, sedangkan ordo Ultisol dan Oxisol memiliki kelas tekstur liat. Kriteria masing-masing sifat fisika tanah kelapa sawit pada kedalaman 0-20 cm diantaranya indeks stabilitas agregat ordo Inceptisol mantap, ordo Ultisol kurang mantap, ordo Oxisol sangat mantap. Berat volume ordo Inceptisol tinggi, ordo Ultisol sedang, ordo Oxisol sedang. Total Ruang Pori ordo Inceptisol rendah, ordo Ultisol sedang, ordo Oxisol sedang. Permeabilitas ordo Inceptisol sangat cepat, ordo Ultisol agak cepat, ordo Oxisol sedang. Manajemen lahan juga mempengaruhi perubahan sifat fisika tanah, khususnya kandungan bahan organik tanah. Manajemen lahan kelapa sawit pada ordo Inceptisol dan ordo Oxisol di daerah Ranah Palabi memberikan kandungan bahan organik lebih besar dibandingkan dengan ordo Ultisol.

***Kata kunci : Kelapa sawit, Ordo tanah, Sifat fisika tanah, Timpeh.***

# STUDY OF PHYSICAL PROPERTIES OF 3 SOIL ORDERS ON LOCAL OIL PALM PLANTATION IN TIMPEH, DHARMASRAYA REGENCY

## ABSTRACT

Timpeh is a central area of oil palm plantation in Dharmasraya regency of West Sumatra Province. The plantation is mostly managed by the community and has 3 different orders of soil. This study was aimed to determine the physical properties of 3 different orders of soil (Ultisols, Oxisols and Inceptisols) on local oil palm plantations in Timpeh, Dharmasraya Regency. This study used survey method, soil samples were taken based on "stratified random sampling" Under oil palm plantation having 22 years old at 0-8% slope. Every 500 ha area represented 1 point of soil sample for each soil order. Parameters of soil physical properties analyzed were soil texture, organic matter, aggregate stability index, bulk density, total pore space and permeability. The results showed that there were differences of soil physical properties under oil palm plantation in 3 different orders of soils. Soil organic matter content under plantation tended to decrease as the of oil palm land tends to decrease as the depth increases. Soil texture of Inceptisol texture was sandy clay, Ultisol and Oxisol were clay. Soil aggregate stability index was categorized as stable for Inceptisol, unstable for Ultisol and very stable for Oxisol. Soil bulk density was high for Inceptisol, moderate for Ultisol adn Oxisol. Total pore space was low for Inceptisol and moderate for Ultisol and Oxisol. The permeability rate was very fast for Inceptisol rather fast for Ultisol and moderate for Oxisol. Land management changed soil physics properties, especially soil organic matter content. Field management of oil palm plantation in Palabi at Inceptisol and Oxisol gave higher soil organic content than that at Ultisol order.

**Keywords:** *Palm oil, Order of land, Physical properties of soil, Timpeh.*

