

**KANDUNGAN BAHAN ORGANIK PARTIKULAT ULTISOL
PADA BEBERAPA KELAS LERENG DI PERKEBUNAN
KELAPA SAWIT (*Elaeis Guineensis* Jacq) PO. ASIONG PROVINSI
RIAU**

SKRIPSI



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Guineensis Jacq*) PO. ASIONG PROVINSI RIAU**

ABSTRAK

Penelitian tentang kandungan bahan organik partikulat (BOP) pada tanah berordo Ultisol di beberapa kelas lereng bertujuan untuk mendeterminasi kandungan BOP di perkebunan kelapa sawit Kecamatan Kemuning Kabupaten Indragiri Hilir Riau. Penelitian ini dilakukan dari bulan Maret sampai Juli 2017. Sampel tanah diambil di perkebunan PO. Asiong Riau dan dianalisis di Laboratorium Fisika dan Kimia Tanah Fakultas Pertanian Universitas Andalas Padang. Penelitian ini dilakukan menggunakan metode *survey* dengan sampel tanah diambil secara *Purposive Random Sampling*. Sampel tanah diambil pada lima kelas lereng (0-8%; 8-15%; 15-25%; 25-45%; dan >45%) dari ordo Ultisol dari perkebunan kelapa sawit berumur 16 dan 18 tahun dan semak belukar sebagai pembanding. Parameter sifat fisika tanah diantaranya tekstur, C-organik, N-total, bobot volume, total ruang pori, dan stabilitas aggregate dan bahan organik partikulat dari sampel tanah dengan kedalaman 0-20 cm dan 20-40 cm. Hasil penelitian menunjukkan bahwa kandungan BOP tanah di perkebunan kelapa sawit dan semak belukar termasuk rendah pada kedua lapisan tanah 3,19-4,51% pada lapisan 0-20 cm dan 1,6-3,93% pada lapisan 20-40 cm disemua kelas lereng, sedangkan kandungan BOT termasuk sedang. Akan tetapi ratio BOP/BOT relatif tinggi 0,60-0,86 pada lahan kelapa sawit dan 0,83-0,95 pada semak belukar. Sifat fisika tanah pada lahan kelapa sawit disetiap kelas lereng memiliki tekstur liat, bobot volume dan total ruang pori sedang, dan stabilitas agregat tanahnya termasuk kelas kurang mantap sampai agak mantap. Nilai C/N pada lahan kelapa sawit cenderung menurun dengan peningkatan kelas lereng.

Kata Kunci : Bahan organik partikulat, kelapa sawit, kelas lereng, Ultisol

PARTICULATE ORGANIC MATTER CONTENT OF ULTISOL AT SEVERAL CLASSES OF SLOPE UNDER OIL PALM (*Elaeis Guineensis* Jacq) PLANTATION IN PO. ASIONG INDRAGIRI RIAU

Abstrack

A research on determination of particulate organic matter (POM) of Ultisolat some slope classes was aimed to determine POM under oil palm plantations in Kemuning Sub-district of Indragiri Hilir Regency, Riau. This research was conducted from March to July 2017. The soil samples were taken at the PO Asiong plantation Riau and analyzed atsoil Physical and Chemical Laboratory, Faculty of Agriculture Andalas University, Padang. This research was conducted using survey method in which soil samples were taken based on Purposive Random Sampling method. Soil samples were taken at Ultisols having five classes of slope (0-8%, 8-15%, 15-25%, 25-45%, and > 45%) and shrubs as comparison. Disturbed and undisturbed, soil sampels were taken from 2 soil depths, 0-20 cm and 20- 40 cm. The parameters analyzed were total organic matter of soil (TOM), POM, total nitrogen (TN), Texture, bulk density (BD), total pore (TP), and soil aggregate stability index (ASI). The results showed that generally, POM content in oil palm plantation and shrub was considered low in both soil POM contant was 3.19-4.51% found in soil of 0-20 cm and 1.6-3.93% in soil of 20-40 cm at all slope classes, while the TOM content was classified into moderate. Relatively high POM / TOM ratio was found 0.60-0.86 under oil palm and 0.83-0.95 under shrubs. The soil texture at oil palm plantation in PO. Asiong in each slope was clay, the BD and the TP were moderate, and the soil aggregate stability belonged to less steady to moderately steady. Ratio of C/N in oil palm areas tended to decrease with increasing percentage of slopes.

Keywords: Particulate organic matter, oil palm, slope class, Ultisol