

ANALISIS KARAKTER DEPOSIT MATERIAL DI KETIAK PELEPAH KELAPA SAWIT UMUR 8 TAHUN

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INTISARI

Banyak usaha dilakukan untuk meningkatkan produktivitas kelapa sawit mengingat komoditas ini penting bagi penyumbang devisa negara. Salah satu upaya adalah peningkatan efisiensi pemupukan dengan cara aplikasi non konvensional melalui organ di atas tanah yaitu ketiak pelepah. Diperkirakan material yang tertimbun di ketiak pelepah dapat mempengaruhi efektifitas pemupukan. Penelitian ini bertujuan untuk mengkaji deposit material di ketiak pelepah kelapa sawit meliputi sifat fisik, kimia dan biologi. Penelitian ini dilaksanakan di perkebunan PT Bumitama Gunajaya Agro Ketapang Kalimantan Barat dengan ketinggian ± 38 m dpl, dari bulan Oktober 2018 hingga Januari 2019 dan dilanjutkan Analisis Laboratorium di Laboratorium Ilmu Tanah Universitas Mercubuana Yogyakarta dan di Laboratorium ICCB Bogor. Penelitian survei ini menggunakan metode rancangan tersarang. Areal tanaman umur 8 tahun dibagi menjadi tiga lokasi yaitu pinggir, tengah dan dalam. Pada tiap lokasi ditentukan tiga tanaman sampel, dan pada tiap tanaman ditentukan tiga titik sampel ketiak pelepah yaitu atas, tengah dan bawah untuk diambil material depositnya. Hasil penelitian menunjukkan, **karakter fisik** ketiak pelepah tanaman yang berada di tepi, tengah maupun dalam lokasi relatif tidak ada perbedaan.. Rata-rata sudut duduk pelepah adalah runcing kurang dari 55° . Deposit material yang adapun relatif sedikit berkisar antara 79 gram sampai 100 gram. Variabel yang berbeda hanyalah kadar lengas material, dimana pada tanaman bagian dalam lokasi memiliki nilai tertinggi yaitu 78,7% diiringi dengan kelembaban udara sekitar ketiak pelepah 75,3%. Secara umum tekstur material didominasi oleh pasir. **Karakter kimia** material yang terdiri dari bahan organik, C-organik, C/N ratio, N total, P total, K total dalam ketiak pelepah tanaman yang berada di tiga macam lokasi relatif sama dan tergolong rendah nilainya. Bahan organik telah terdekomposisi dengan sempurna ditandai dengan nilai C/N ratio berkisar 9,4-12,5. Kapasitas tukar kation material yang tertimbun dalam ketiak pelepah tergolong tinggi yaitu antara 83,0-102,8 cmol(+)/kg, sedangkan pH tergolong asam hingga sedang (5,47-6,06). **Karakter biologi**, yaitu total mikroba tidak menunjukkan perbedaan nyata namun mikroba pelarut fosfat antar lokasi menunjukkan perbedaan nyata dan antar tanaman tidak menunjukkan perbedaan nyata. Bakteri pelarut fosfat lebih banyak terdapat pada tanaman yang berada di lokasi tepi.

Kata kunci: Kelapa sawit, ketiak pelepah, deposit material, karakter fisik, kimia, biologi

ANALYSIS OF MATERIAL DEPOSITE CHARACTERISTICS IN 8 YEARS OIL PALM LEAF AXIL

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ABSTRACT

Many attempts were made to increase the productivity of oil palm, considering that this commodity is important for foreign exchange earners. One effort is to increase the efficiency of fertilization by means of non-conventional application through organs above the ground, namely the leaf axils. It is estimated that the material buried in the leaf axil can affect the effectiveness of fertilization. This study aims to examine the material deposits in the oil palm leaf axil involve the physical, chemical and biological characteristics. This research was conducted at PT Bumitama Gunajaya Agro Ketapang West Kalimantan's plantation with a height of + 38 m above sea level, from October 2018 to January 2019 and continued with Laboratory Analysis at the Soil Science Laboratory of Mercubuana University Yogyakarta and at the ICCB Laboratory Bogor. This survey research uses nested design methods. The area of the 8-years plant is divided into three locations namely edge, middle and inner. At each location three sample plants were determined, and at each plant three sample points were determined to the leaf axil, namely the top, middle and bottom to take the material deposit. The results showed that there was no difference in the physical characteristics of the axill on the edge, middle or inner location. The average sitting angle of the midrib is tapered less than 55°. The amount of material deposits relatively small ranges from 79 grams to 100 grams. The only variable that was different was the moisture content of the material, which in the plant inside the location has the highest value of 78.7% accompanied by humidity around the axil 75.3%. In general, the texture of the material is dominated by sand. Chemical character of material consisting of organic material, C-organic, C / N ratio, total N, total P, total K in the axils which were in three different locations were relatively the same and classified as low in value. Organic material has been decomposed perfectly marked with a C / N ratio ranging from 9.4 to 12.5. The cation exchange capacity material that is buried in the axils were relatively high, which is between 83.0-102.8 cmol (+) / kg, while pH is classified as acidic to moderate (5.47-6.06). Biological character, that was total microbial does not show significant difference but microbial phosphate solvent between locations shows difference and between plants does not. Phosphate solubilizing bacteria were more common in plants that were on the edge location.

Key-words : Oil palm, leaf axill, Character of fisic, chemical, biology, material deposite.