ANALISIS KARAKTER DEPOSIT MATERIAL DI KETIAK PELEPAH KELAPA SAWIT UMUR 5 TAHUN

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INTISARI

Penelitian dengan tujuan untuk mengetahui sifat deposit material di ketiak pelepah kelapa sawit meliputi fisik, kimia, dan biologi, telah dilaksanakan September sampai Desember 2018 di Perkebunan PT. Bumitama Gunajaya Agro Ketapang Kalimantan Barat. Penelitian survei ini menggunakan rancangan tersarang. Area tanaman umur lima tahun dibagi menjadi tiga lokasi yaitu pinggir, tengah, dan dalam. Pada tiap lokasi di tentukan tiga tanaman sampel dan pada tiap tanaman ditentukan dua titik ketiak pelepah yaitu atas dan bawah tempat deposit material akan diambil. Hasil penelitian menunjukan, karakter fisik yang terdiri dari, sudut pelepah, total biomassa, tekstur dan kedalaman pelepah relatif sama, sedangkan suhu, kelembaban dan lebar pelepah berbeda secara nyata sudut terhadap terhadap batang rata-rata lancip antara 28,3° sampai 38,3°. Lebar dasar pelepah ada perbedaan, dimana tanaman yang berada di tengah memiliki lebar pelepah lebih lebar yaitu 19,1 cm sedangkan di sisi lokasi lain relatif sama. Berat total material yang terkumpul didalam ketiak pelepah tidak berbeda secara nyata yaitu 45,5 g-78,0. Dari total biomassa yang terkumpul sebagian besar masih berupa material kasar (antara 63,5-80,2%), sisanya antara 26,9-36% berupa material sedang dan halus. Tekstur material didominasi oleh pasir dan debu, sisanya adalah lempung (sekitar 6%), kelembaban dan suhu dalam ketiak pelepah berbeda-beda menurut perbedaan lokasi. Rata-rata kelembaban relatif tinggi terdapat pada tanaman di lokasi tepi yaitu sekitar 58,8% dengan suhu paling rendah yaitu sekitar 33°C, sedangkan di lokasi yang lebih dalam kelembaban 52,7% dengan suhu 34°C. Karakter kimia yang terdiri dari kadar lengas C-Organik, bahan organikn N-Total, P-Total, P-Total, KTK, dan C/N Rasio tidak ada perbedaan nyata baik antar tanaman maupun lokasi. Deposit material terdiri atas bahan organik yang relatif tinggi antara 66,5 %-77,5% dan belum terdekomposisi lanjut, ditandai dengan nilai ratio C/N masih sekitar 21-29,6. Nilai kapasitas tukar kation tergolong tinggi yaitu antara 54,2 sampai 64,1 cmol(+)/kg dan pH mendekati netral yaitu antara 6,1-6,6. Karakter biologi yang diukur terdiri dari total mikroba dan total bakteri pelarut fosfat. Pada tiga lokasi maupun tanaman yang berbeda jumlah mikroba maupun bakteri pelarut fosfat tidak berbeda nyata. Pada total mikroba terbanyak 84 x 10^5 blok tengah dan pada total BPF terdapat pada lokasi dalam 26,6 x 10^5.

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

ANALYSIS OF MATERIAL DEPOSITE CHARACTERS OF FIVE-YEAR OIL PALM LEAF AXIL

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ABSTRACT

Research with the aim to find out the character of material deposits in the oil palm leaf axil, including physical, chemical, and biological, was carried out from September to December 2018 at PT. Bumitama Gunajaya Agro Ketapang, West Kalimantan. This survey research used a nested design. The five year old plant area is divided into three locations namely edge, middle and inner. At each location three sample plants were determined and at each plant two oil palm leaf axil were determined, namely the top and bottom where material deposits would be taken. The results showed that the physical characteristics consisting of the midrib, total biomass, texture and depth of the midrib were relatively the same, while the temperature, humidity and width of the midrib were significantly different. The midrib of the stem on the average plants was between 28.3 ^{o} to 38.3 ^{o}. The base width of the midrib is different, where the plant in the middle has a wider midrib width of 19.1 cm while on the other side the location was relatively the same. The total weight of material collected in the leaf axil was not significantly different, between 45.5 gram-78.0 gram. Of the total biomass collected, the majority was still in the form of crude material (between 63.5-80.2%), the remaining 26.9-36% was in the form of medium and fine materials. The texture of the material is dominated by sand and dust, the rest was clay (about 6%). The humidity and temperature in the leaf axil vary according to different locations. The average relatively high humidity is found in plants at the edge location which was around 58.8% with the lowest temperature of about 33 ^{o}C, while in inner locations the humidity was 52.7% with a temperature of 34.2 ^{o}C. Chemical characters consisting of moisture content, C-Organic, Organic materials N -Total, P-Total, K-Total, CEC, and C/N ratios were not significant differences either between plants or locations. Material deposits consist of relatively high organic matter between 66.5% -77.5% and have not been further decomposed, marked by a C / N ratio value of around 21-29.6. The cation exchange capacity was relatively high, between 54.2 to 64.1 cmol (+) / kg and the pH approaches neutral, between 6.1-6.6. The biological characters measured consisted of total microbes and total phosphate solubilizing bacteria. At three different locations and plants the number of microbes and phosphate solubilizing bacteria were not significantly different. The most total microbes 84x10^{5}and BPF 26,6x10^{5}.

Key-words : Oil palm, material deposite, leaf axil, physical, chemical and biologycal characters