

**PENGARUH UMUR TANAMAN KELAPA SAWIT (*Elaeis guineensis*)
TERHADAP SIFAT KIMIA TANAH GAMBUT DI KECAMATAN
PASAMAN KABUPATEN PASAMAN BARAT**

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ABSTRAK

Kabupaten Pasaman Barat memiliki 34.022 ha luasan tanah gambut dari 125.340 ha total luas tanah gambut Sumatera Barat. Lahan gambut yang potensial banyak dialihfungsikan salah satunya ialah perkebunan kelapa sawit. Umur tanaman dapat mempengaruhi sifat tanah dan kualitas tanah. Penelitian ini bertujuan untuk mengkaji pengaruh umur tanaman kelapa sawit terhadap beberapa sifat kimia dan populasi mikroorganisme tanah gambut di Kecamatan Pasaman, Kabupaten Pasaman Barat. Sebanyak 12 sampel tanah dari 12 titik pengambilan sampel di Kecamatan Pasaman dikumpulkan dari lahan kelapa sawit umur berbeda yaitu umur 5 tahun, umur 15 tahun dan umur 25 tahun serta semak belukar sebagai kontrol. Penelitian ini dilakukan di laboratorium Kimia Tanah Fakultas Pertanian Universitas Andalas dimana hasil penelitian menunjukkan bahwa lahan kelapa sawit umur 5 tahun memiliki nilai tertinggi pada analisis sifat kimia tanah gambut yang meliputi C-Organik (36,14% dan 8,50%), P-Tersedia (45,99 ppm dan 42,42 ppm) dan N-total (0,66% dan 0,80%). Sedangkan lahan kelapa sawit umur 25 tahun memiliki nilai tertinggi untuk pH (4,89 unit dan 4,76 unit), kadar abu (54,65% dan 66,19%) Serta Kapasitas Tukar Kation (82,98 me/100g dan 101,30 me/100g) dengan kedalaman masing – masing 0-30 cm dan 30-60 cm. Populasi mikroorganisme meliputi populasi jamur dan bakteri tertinggi dijumpai pada lahan kelapa sawit umur 5 tahun di kedalaman 0-30 cm.

Kata kunci: *sifat kimia tanah, kelapa sawit, umur tanaman, tanah gambut.*

THE EFFECT OF OIL PALM PLANT AGE (*Elaeis guineensis*) ON THE CHEMICAL PROPERTIES OF PEAT SOILS IN PASAMAN DISTRICT, WEST PASAMAN REGENCY

ABSTRACT

West Pasaman Regency has 34,022 ha of peatland area from 125,340 ha of the total peatland area of West Sumatra. Peatlands have the potential to be converted, one of which is oil palm plantations. The age of the plant can affect the nature of the soil and the quality of the soil. This study aims to observe the effect of oil palm plant age on several chemical properties and populations of peat soil microorganisms in Pasaman District, West Pasaman Regency. A total of 12 soil samples from 12 sampling points in Pasaman Subdistrict were collected from oil palm plants of different ages, namely 5 years old, 15 years old, and 25 years old, and shrubs as a control. This research was conducted in the Soil Chemistry laboratory of the Faculty of Agriculture, Andalas University, where the results show that oil palm plants aged five years have the highest value in the analysis of peat soil chemical properties which included C-Organic (36.14 % and 38.50%), P-Available (45.99 ppm and 42.42 ppm) and N-total (0.66% and 0.80%). While oil palm plants aged 25 years have the highest values for pH (4.89 units and 4.76 unit), ash content (54.65% and 66.19%) as well as Cation Exchange Capacity (82.98 me/100g and 101.30 me/100g) with a depth of 0–30 cm and 30–60 cm, respectively. The population of microorganisms includes the highest population of fungi and bacteria found in oil palm plants aged five years at a depth of 0-30 cm.

Keywords: *chemical properties, oil palm, plant age, peat soil.*

