

PERTUMBUHAN JATI (*Tectona grandis*) PADA BEBERAPA POSISI KELERENGAN DI PETAK 17 HUTAN WANAGAMA UNIVERSITAS GADJAH MADA

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INTISARI

Jati (*Tectona grandis*) merupakan salah satu jenis tanaman komersial yang banyak dikembangkan pada hutan monson dataran rendah khususnya di pulau Jawa. Pertumbuhan tanaman jati bervariasi antar lokasi. Faktor-faktor yang mempengaruhi pertumbuhan jati adalah genetik, lingkungan dan interaksi antara genetik dan lingkungan. Faktor lingkungan yang dimungkinkan mempengaruhi pertumbuhan jati adalah sifat fisika tanah diantaranya adalah ketebalan solum tanah dan kelerengan lahan. Berkaitan hal tersebut maka perlu kajian mengenai hubungan ketebalan solum tanah dan kelerengan tempat tumbuh terhadap pertumbuhan tanaman. Penelitian dilakukan dengan membagi kelerengan menjadi tiga yaitu atas, tengah dan bawah. Setiap kelerengan dibuat plot uji percobaan sebanyak tiga plot dengan luasan tiap plot 10x10m untuk pengamatan pertumbuhan tanaman serta diambil data *bulk density* dan solum tanah. Hasil penelitian menunjukkan bahwa rerata *bulk density* pada kelerengan atas, tengah dan bawah adalah 1,10 g/cm³, 1,13 g/cm³ dan 1,11 g/cm³. Rerata ketebalan solum tanah pada kelerengan atas, tengah dan bawah adalah 37 cm, 60 cm, dan 60 cm. Disamping itu, rerata pertumbuhan tinggi pada kelerengan atas, tengah dan bawah adalah 12,8 m, 17,4 m, dan 18,8 m. Rerata pertumbuhan diameter pada kelerengan atas, tengah dan bawah adalah 25,4 cm, 28,4 cm, dan 27,2 cm. Hal ini menunjukkan bahwa pertumbuhan tanaman jati pada lereng tengah dan bawah mempunyai pertumbuhan yang baik karena memiliki ketebalan solum tanah yang tebal.

Kata kunci: jati, kelerengan, *bulk density*, solum tanah

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THE GROWTH OF TEAK (*Tectona grandis*) ON SEVERAL POSITION OF SLOPE AT COMPARTMENT 17, WANAGAMA EDUCATIONAL FOREST GADJAH MADA UNIVERSITY

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Abstract

Teak (*Tectona grandis*) was one of commercial plants that was planted at in the lowland monsoon forest, especially in Java island. The growth of teak was varied each location. The growth of teak was influenced by a genetic, an environment and the interaction between genetic and environment. An environment factor that probably influenced the growth of teak was soil physical properties, such as solum thickness and land slopeness. Related to that, the study was established to find the relationship between soil solum thickness and slopeness of growing place to the growth of the plant. The study was conducted by dividing the slopes into three parts that they were upper, middle, and lower slope. Each slope was made 3 plots which the size of each plot was 10x10 meters to measure the growth of teak, data *bulk density* and soil solum. The research result showed that average of bulk density on the upper, middle and lower slope were 1,10 g/cm³, 1,13 g/cm³ and 1,11 g/cm³, respectively. The average of solum thickness of the upper, the middle, and the lower slope were 37 cm, 60 cm, and 60 cm, respectively. On the other hand, the average of the high growth on the upper, middle and lower slope were 12,8 meters, 17,4 meters and 18,8 meters. The average of the diameter growth on the upper, middle and lower slope were 25,4 cm, 28,4 cm, and 27,2 cm. It suggested that the growth of teak on the middle and the lower slope had a good growth because the slope and the soil solum thickness influenced the growth of teak.

Keywords : teak, slope, *bulk density*, soil solum,

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