

## **SIFAT FISIK KAYU MANGLID (*Manglieta glauca* Bl.) PADA ARAH AKSIAL DAN RADIAL**

***(Physical Properties of Manglid Wood *Manglieta glauca* Bl on Axial and  
Radial Orientatio)***

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### **ABSTRACT**

*Study on physical properties of manglid (*Manglieta glauca* Bl. wood on axial and radial orientation has been conducted. Three manglid trees were taken as samples from community forest in Sodonghilir Village, Sodonghilir Subdistrict, Tasikmalaya Regency, West Java. The observation focused on physical properties on three positions of both axial orientation (bottom, middle and top of trunk) and radial orientation (near pith, middle and near bark). The parameters observed were fresh moisture content, air dry moisture content, and wood dimensional changes. Result shows that the average of fresh moisture content of manglid wood is 168.77%, air dry moisture content is 14.63%, specific gravity on fresh volume is 0.35, specific gravity on air dry volume is 0.36 and specific gravity kiln dry volume is 0.38. Based on its dimensional changes, manglid wood has longitudinal shrinkage value of 1.51%, radial shrinkage value of 4.08%, tangential shrinkage value of 5.84%, and ratio of tangential and radial shrinkage of 1.54. Physical properties of manglid wood on axial and radial orientation are varied for fresh moisture content and specific gravity, while the air dry moisture content and the dimensional changes are not significantly different. The trend of fresh moisture content value on axial orientation is increased from the bottom to the middle of the trunk, and then decreased at the top of the trunk. On radial orientation, the fresh moisture content value consistently decreases from the pith to towards the bark. Specific gravity value on the axial orientation decreases from the bottom of the trunk to the middle, then increases on the top. In radial orientation, the specific gravity value consistently increases from the pith towards the bark.*

**Keywords:** Axial, moisture content, physical properties, radial, specific gravity

## ABSTRAK

Penelitian mengenai karakteristik sifat fisik kayu manglid (*Manglieta glauca* Bl.) dan variasinya pada arah aksial dan radial batang telah dilakukan. Sampel kayu manglid dari hutan rakyat desa Sodonghilir, Kecamatan Sodonghilir, Kabupaten Tasikmalaya, Jawa Barat diambil sejumlah 3 pohon, masing-masing diambil sampel 3 titik pada arah aksial dan radial batang. Parameter-parameter sifat fisika kayu yang diukur adalah kerapatan kayu, kadar air segar, kadar air kering udara, dan perubahan dimensi kayu. Hasil penelitian menunjukkan bahwa kayu manglid memiliki kadar air segar rata-rata 168,77%, kadar air kering udara 14,63%, berat jenis pada volume segar 0,35, berat jenis pada volume kering udara 0,36 dan berat jenis pada volume kering tanur 0,38. Berdasarkan sifat perubahan dimensinya, kayu manglid memiliki nilai penyusutan pada arah longitudinal 1,51%, penyusutan arah radial 4,08%, penyusutan arah tangensial 5,84%, serta rasio penyusutan tangensial dan radial 1,54. Sifat fisik kayu manglid pada arah aksial dan radial bervariasi untuk kadar air segar dan berat jenis, sedangkan kadar air kering udara, dan perubahan dimensinya relatif seragam. Kadar air segar kayu manglid pada arah aksial memiliki pola sebaran meningkat dari arah pangkal ke tengah batang, kemudian menurun pada bagian ujung. Sementara pada arah radial, pola sebaran kadar air segarnya adalah menurun secara konsisten dari arah dekat empulur ke arah sisi. Berat jenis kayu manglid pada arah aksial memiliki pola sebaran menurun dari bagian pangkal ke tengah batang, kemudian meningkat pada bagian ujung. Pola sebaran berat jenis pada arah radial meningkat secara konsisten dari bagian dekat empulur ke arah kulit kayu.

Kata kunci: Aksial, berat jenis, kadar air, radial, sifat fisik