

SIFAT Pengerjaan Kayu Tembesu (*Fagraea fragrans*) Dan Kayu Mahoni (*Swiethenia* sp.) Sebagai Bahan Baku Mebel

Yusi Br Barus¹⁾ Riana Anggarini²⁾ Jauhar Khabibi³⁾

¹⁾Mahasiswa Jurusan Kehutanan Fakultas Pertanian Universitas Jambi

²⁾Dosen Jurusan Kehutanan Fakultas Pertanian Universitas Jambi

³⁾Dosen Jurusan Kehutanan Fakultas Pertanian Universitas Jambi

Email: yusibaruscim@gmail.com

ABSTRACT

*This research analyzes the woodworking properties of Tembesu wood (*Fagraea fragrans*) and Mahogany wood (*Swiethenia* sp.) as raw materials for furniture, considering that both wood types are highly sought after in trade and furniture production due to their attractive textures. Tembesu wood is known to be hard, durable, and easy to shape, while Mahogany wood is easily worked with a fine texture, though it is less resistant to high humidity, making it suitable for interior use. The woodworking process is significantly influenced by the quality of raw materials and working techniques, which determine the final product. This research was conducted from May to July 2025 at Sawmill Kania and the Forest Products Technology Laboratory of Jambi University, using methods based on ASTM D-1666-64 (1981) with board samples measuring 125 cm x 12.5 cm x 2 cm and 4 repetitions for each wood type.*

The research process included wood preparation, cutting, planing, drilling, sanding, and chiseling. The results showed that the cutting, planing, and sanding processes for Tembesu wood were classified as woodworking property I (Very Good), while drilling was classified as II (Good). For Mahogany wood, cutting, planing, and sanding were also classified as I (Very Good), but drilling was classified as III (Medium). The most common defects found in cutting and planing were fuzzy grains. The average moisture content of Tembesu wood was 15.6% and Mahogany was 17%, which are within standard ranges. Both wood types are classified as heavy wood based on specific gravity tests (Tembesu 0.98 and Mahogany 0.83).

Keywords: *Tembesu Wood, Mahogany Wood, Woodworking Properties, Furniture, Wood Defects*

ABSTRAK

Penelitian ini menganalisis sifat pengerjaan kayu tembesu (*Fagraea fragrans*) dan kayu mahoni (*Swiethenia* sp.) sebagai bahan baku mebel, mengingat kedua jenis kayu ini banyak diminati dalam perdagangan dan produksi mebel karena teksturnya yang menarik. Kayu tembesu dikenal keras dan tahan lama, mudah dibentuk, sementara kayu mahoni mudah dikerjakan dengan tekstur halus, meskipun kurang tahan kelembaban tinggi sehingga cocok untuk penggunaan interior. Proses pengerjaan kayu sangat dipengaruhi oleh kualitas bahan baku dan teknik pengerjaan, yang menentukan hasil akhir produk. Penelitian ini dilaksanakan dari Mei hingga Juli 2025 di Sawmill Kania dan Laboratorium Teknologi Hasil Hutan Universitas Jambi, menggunakan metode berdasarkan ASTM D-1666-64 (1981) dengan sampel papan berukuran 125 cm x 12,5 cm x 2 cm dan 4 kali pengulangan untuk setiap jenis kayu.

Proses penelitian meliputi persiapan kayu, pemotongan, penyerutan, pengeboran, pengamplasan, dan pemahatan. Hasil penelitian menunjukkan bahwa proses pemotongan, penyerutan, dan pengamplasan pada kayu tembesu diklasifikasikan sebagai sifat pengerjaan kayu I (Sangat Baik), sedangkan pengeboran masuk klasifikasi II (Baik). Untuk kayu mahoni, pemotongan, penyerutan, dan pengamplasan juga masuk klasifikasi I (Sangat Baik), namun pengeboran masuk klasifikasi III (Sedang). Cacat yang paling banyak ditemukan pada pemotongan dan penyerutan adalah serat bulu halus. Kadar air rata-rata kayu tembesu adalah 15,6% dan mahoni 17%, yang masih dalam kisaran standar. Kedua jenis kayu ini tergolong kayu berat berdasarkan hasil pengujian berat jenis (tembesu 0,98 dan mahoni 0,83).

Kata Kunci: Kayu Tembesu, Kayu Mahoni, Sifat Pengerjaan Kayu, Mebel, Cacat Kayu