

## KEAWETAN ALAMI KAYU JABON MERAH (*Anthocephalus macrophyllus* (Roxb.) Havil.) HASIL PEMULIAAN TERHADAP SERANGAN RAYAP KAYU KERING (*Cryptotermes cynocephalus* Light.)

Oleh:

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### INTISARI

Jabon merah (*Anthocephalus macrophyllus* (Roxb.) Havil.) merupakan jenis tanaman cepat tumbuh yang potensial untuk dikembangkan sebagai bahan baku industri kayu di Indonesia. Besarnya potensi pemanfaatan kayu jabon merah di Indonesia mendorong dilakukannya pemuliaan tanaman jabon merah dengan membangun Kebun Benih Semai Uji Keturunan (KBSUK) untuk mendapatkan benih jabon merah yang unggul. Salah tujuan dilakukannya pemuliaan tanaman adalah meningkatkan produktivitas dan kualitas kayu. Kualitas kayu dapat ditentukan oleh berbagai aspek, salah satunya adalah keawetan alami kayu. Penelitian ini bertujuan untuk mengetahui kadar air, berat jenis, kadar ekstraktif, mortalitas rayap, kehilangan berat kayu, dan keawetan alami kayu jabon merah pada arah aksial dan radial terhadap serangan rayap kayu kering (*Cryptotermes cynocephalus* Light.).

Penelitian ini menggunakan sampel kayu jabon merah berumur 11 tahun yang berasal dari KBSUK generasi pertama (F-1) di Kabupaten Wonogiri, Jawa Tengah. Penelitian ini menggunakan metode rancangan acak lengkap dengan dua faktor yaitu arah aksial dan radial pohon. Hasil penelitian dianalisis dengan analisis keragaman dan pengujian lanjut dengan uji *Tukey* HSD. Parameter yang diamati adalah kadar air, berat jenis, kadar ekstraktif, mortalitas rayap, dan kehilangan berat kayu.

Hasil penelitian menunjukkan pada arah radial berpengaruh nyata terhadap kehilangan berat, sedangkan mortalitas rayap tidak berpengaruh nyata baik pada arah aksial maupun radial. Pada penelitian ini diperoleh kadar air kering udara jabon merah berkisar 10,78–11,23%, berat jenis berkisar 0,32–0,40, kadar ekstraktif berkisar 3,59–5,35%, mortalitas rayap berkisar 6,67–36,67%, dan kehilangan berat berkisar 26,96–29,17%. Hasil penelitian menunjukkan kayu jabon merah tergolong dalam kelas awet IV (tidak tahan) dan kelas awet V (sangat tidak tahan) berdasarkan SNI 01-7207-2006. Oleh karena itu, kayu jabon merah cocok digunakan untuk kayu lapis, serta mebel dan konstruksi ringan dengan perlakuan pengawetan.

**Kata kunci:** keawetan alami, jabon merah, rayap kayu kering

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## NATURAL DURABILITY OF RED JABON WOOD (*Anthocephalus macrophyllus* (Roxb.) Havil.) FROM TREE BREEDING AGAINST DRYWOOD TERMITES (*Cryptotermes cynocephalus* Light.) ATTACK

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### ABSTRACT

Jabon merah (*Anthocephalus macrophyllus* (Roxb.) Havil.) is a fast growing species which potential to be developed as wood-industrial raw material in Indonesia. The use potential of jabon merah wood in Indonesia has improved through tree improvement program by established a Seedling Seed Orchard (SSO) to produce the superior progeny of jabon merah with high quality of wood. Wood quality can be determined by various aspects, one of which is the natural durability of wood. The aim of this study was to determine the water content, specific gravity, extractive content, termite mortality, wood weight loss, and the natural durability of jabon merah wood in the axial and radial position against drywood termites (*Cryptotermes cynocephalus* Light.) attack.

The wood samples were eleven years old of jabon merah wood from the stand of first generation (F-1) SSO in Wonogiri District, Central Java Province. The design used in this study was a completely randomized design method with two factors, namely the axial and radial directions of the tree. The results of this study were analyzed using diversity analysis and further testing with the *Tukey* HSD test. The parameters observed were moisture content, specific gravity, extractive content, termite mortality, and wood weight loss.

The results showed that the radial position had a significant effect on weight loss, while termite mortality had no significant effect in either the axial or radial position. In this study, the air moisture content of jabon merah was obtained in the range of 10.78–11.23%, the specific gravity ranged from 0.32 to 0.40, the extractive content ranged from 3.59 to 5.35%, the termite mortality ranged from 6.67 to 36.67%, and weight loss ranged from 26.96 to 29.17%. Based on the results, concluded that jabon merah wood is categorized into class IV (not resistant) and class V (highly not resistant) based on SNI 01-7207-2006. Therefore, red jabon wood is suitable for use for plywood, as well as furniture and light construction with preservation treatment.

**Key words:** natural durability, red jabon, drywood termites

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