

**PENGARUH DURASI REBUSAN KAYU SECANG (*Caesalpinia sappan* L.)
TERHADAP PERTUMBUHAN BAKTERI *Staphylococcus aureus*
ATCC 25923**

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INTISARI

Latar Belakang: *Staphylococcus aureus* merupakan salah satu bakteri yang dapat menyebabkan infeksi. Kayu secang (*Caesalpinia sappan* L.) diketahui mengandung senyawa aktif seperti flavonoid, tanin dan saponin yang memiliki potensi sebagai antibakteri. Ekstraksi senyawa aktif melalui metode rebusan dinilai efektif, namun durasi perebusan berperan penting dalam menentukan efektivitas antibakterinya.

Tujuan: Mengetahui aktivitas dan pengaruh durasi rebusan (10, 20, 30 dan 40 menit) kayu secang terhadap pertumbuhan bakteri *Staphylococcus aureus* ATCC 25923.

Metode: Kayu secang direbus dengan suhu 90⁰C selama 10, 20, 30 dan 40 menit. Sampel hasil rebusan kemudian dilakukan skrining fitokimia dan diuji aktivitas antibakterinya menggunakan metode difusi cakram terhadap bakteri *Staphylococcus aureus* ATCC 25923 dan diukur diameter zona hambatnya.

Hasil: Skrining fitokimia menunjukkan pada semua durasi rebusan kayu secang mengandung senyawa flavonoid, tannin, dan saponin. Durasi rebusan 10, 20, 30 dan 40 juga menunjukkan aktivitas antibakteri yaitu 21,11 mm; 21,93 mm; 20,66 mm; dan 20,43 mm.

Kesimpulan : Rebusan kayu secang menunjukkan aktivitas antibakteri yang kuat hingga sangat kuat terhadap *Staphylococcus aureus* ATCC 25923. Durasi rebusan selama 20 menit merupakan waktu perebusan paling optimal.

Kata Kunci: Kayu secang, *Caesalpinia sappan* L., *Staphylococcus aureus*, waktu rebusan.

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**THE EFFECT OF BOILING DURATION OF SECANG WOOD
(*Caesalpinia sappan* L.) ON THE GROWTH OF
Staphylococcus aureus ATCC 25923
BACTERIA**

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ABSTRACT

Background: *Staphylococcus aureus* is one of the bacteria that can cause infections. Sappan wood (*Caesalpinia sappan* L.) is known to contain active compounds such as flavonoids, tannins, and saponins, which have potential as antibacterial agents. Extraction of active compounds through the decoction method is considered effective; however, the duration of boiling plays an important role in determining its antibacterial effectiveness.

Objective: To determine the activity and effect of sappan wood decoction durations (10, 20, 30, and 40 minutes) on the growth of *Staphylococcus aureus* ATCC 25923.

Methods: Sappan wood (*Caesalpinia sappan* L.) was boiled at 90 °C for 10, 20, 30, and 40 minutes. The decoction samples were then subjected to phytochemical screening and tested for antibacterial activity using the disk diffusion method against *Staphylococcus aureus* ATCC 25923, and the diameter of the inhibition zones was measured

Results: Phytochemical screening revealed that decoctions of sappan wood at all durations contained flavonoids, tannins, and saponins. Boiling durations of 10, 20, 30, and 40 minutes also exhibited antibacterial activity with inhibition zones of 21.11 mm, 21.93 mm, 20.66 mm, and 20.43 mm, respectively.

Conclusion: Sappan wood decoction demonstrated strong to very strong antibacterial activity against *Staphylococcus aureus* ATCC 25923. A 20-minute boiling duration was found to be the most optimal.

Keywords: Secang wood, *Caesalpinia sappan* L., *Staphylococcus aureus*, boiling duration.

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