

ABSTRAK

Cincin Rehgina April Nainggolan, NIM 4203220007, Profil Bioaktivitas Antiacne Dari Tanaman Jati (*Tectona grandis* L.f).

Penelitian ini bertujuan untuk mengetahui senyawa metabolit sekunder ekstrak daun muda, daun tua, bunga, buah Jati (*Tectona grandis* L.f) dan aktivitas antibakteri dari ekstrak daun muda, daun tua, bunga, buah Jati terhadap *Propionibacterium acnes*. Ekstrak daun muda, daun tua, bunga, dan buah Jati diperoleh dengan cara sokhlet menggunakan pelarut metanol 96%. Skrining fitokimia dilakukan secara kualitatif. Uji aktivitas antibakteri dilakukan dengan metode difusi cakram dengan konsentrasi 20; 40; dan 60%. Zona hambat yang terbentuk kemudian diukur diameter vertikal dan horizontalnya menggunakan jangka sorong digital, lalu dihitung nilai rata-rata (Mean $\pm$ SD) yang disajikan dalam bentuk tabel. Hasil penelitian menunjukkan bahwa ekstrak daun muda, daun tua, bunga, dan buah jati mengandung senyawa, alkaloid, flavonoid, dan tanin. Ekstrak daun muda, daun tua, bunga, dan buah Jati memiliki aktivitas antibakteri terhadap pertumbuhan *Propionibacterium acnes*. Ekstrak daun muda dengan rata-rata diameter pada konsentrasi 20; 40; dan 60% berturut-turut yaitu 8,74; 12,08; 17,77 mm, ekstrak daun tua dengan rata-rata diameter berturut-turut 11,82; 13,65; 20,86 mm, ekstrak bunga dengan rata-rata diameter berturut-turut 11,04; 13,43; 18,43 mm, ekstrak buah dengan rata-rata diameter berturut-turut 11,73; 14,52; 18,79 mm yang berpotensi sebagai antibakteri.

Kata Kunci: Tanaman Jati (*Tectona grandis* L.f), *Propionibacterium acnes*, Antibakteri



ABSTRACT

Cincin Rehgina April Nainggolan, NIM 4203220007, Antiacne Bioactivity Profile of Teak Plant (*Tectona grandis* L.f).

This study aims to determine the secondary metabolite compounds of young leaf extract, old leaf, flower, and teak fruit (*Tectona grandis* L.f) and the antibacterial activity of young leaf extract, old leaf, flower, and teak fruit against *Propionibacterium acnes*. Young leaf extract, old leaf extract, flower, and teak fruit were obtained by the Soxhlet method using 96% methanol solvent. Phytochemical screening was carried out qualitatively. Antibacterial activity test was carried out by the disc diffusion method with concentrations of 20; 40; and 60%. The inhibition zone formed was then measured for its vertical and horizontal diameter using a digital caliper, then the average value (Mean $\pm$ SD) was calculated which was presented in table form. The results showed that young leaf extract, old leaf extract, flower, and teak fruit contained compounds, alkaloids, flavonoids, and tannins. Young leaf extract, old leaf extract, flower, and teak fruit had antibacterial activity against the growth of *Propionibacterium acnes*. Young leaf extract with an average diameter at concentrations of 20; 40; and 60% respectively, namely 8.74; 12.08; 17.77 mm, old leaf extract with an average diameter of 11.82; 13.65; 20.86 mm respectively, flower extract with an average diameter of 11.04; 13.43; 18.43 mm respectively, fruit extract with an average diameter of 11.73; 14.52; 18.79 mm respectively which have the potential as antibacterial.

Keywords: Teak plant (*Tectona grandis* L.f). *Propionibacterium acnes*,
Antibacterial

