ABSTRAK

UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL DAUN MUDA dan DAUN TUA NAGASARI (*Mesua ferrea* L.) TERHADAP BAKTERI *Staphylococcus aureus*

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Latar Belakang : Nagasari (*Meusa ferrea* L.) telah digunakan sebagai obat tradisional secara turun-temurun dan ekstrak etanol daun nagasari telah terbukti memiliki aktivitas antibakteri pada *Staphylococcus aureus*. Umur daun berpengaruh pada kadar senyawa aktif yang ada di dalamnya, hal ini dapat menyebabkan perbedaan aktivitas yang diberikan. Tujuan penelitian ini adalah untuk mengetahui pengaruh umur daun terhadap aktivitas antibakteri dari nagasari (*Mesua ferrea* L.).

Metodologi : Daun muda dan daun tua nagasari (*Mesua ferrea* L.) dimaserasi dengan etanol 96%. Ekstrak etanol dibuat konsentrasi 1 mg/mL dan 2,5 mg/mL. Uji aktivitas antibakteri dilakukan menggunakan metode difusi cakram dengan kontrol negatif DMSO 10% dan kontrol positif kloramfenikol 30µg. Diameter zona hambat dianalisis menggunakan *Oneway* ANOVA dilanjutkan dengan uji LSD.

Hasil Penelitian Hasil penelitian menunjukkan bahwa ekstrak etanol daun muda nagasari 1 mg/mL dan 2,5 mg/mL menghasilkan diameter zona hambat sebesar 8,7 mm dan 9,3 mm, sedangkan ekstrak etanol daun tua nagasari menghasilkan diameter zona hambat sebesar 9,7 mm dan 11,3 mm.

Kesimpulan : Terdapat perbedaan aktivitas antibakteri dari ekstrak etanol daun muda dan ekstrak etanol daun tua nagasari terhadap *Staphylococcus aureus*. Ekstrak etanol daun tua nagasari memiliki aktivitas antibakteri yang lebih tinggi dibanding ekstrak etanol daun muda nagasari.

Kata Kunci : Ekstrak etanol daun nagasari, muda, tua, *Staphylococcus aureus*

ABSTRACT

TEST OF ANTIBACTERIAL ACTIVITY OF ETHANOL EXTRACT OF YOUNG LEAVES and OLD LEAVES OF NAGASARI (Mesua ferrea L.) AGAINST *Staphylococcus aureus*

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Background : Nagasari (*Mesua ferrea* L.) has been used as traditional medicine for generations and the ethanol extract of nagasari leaves has been shown to have antibacterial activity on *Staphylococcus aureus*. Leaf age affects the levels of the active compounds in it, this can cause differences in the activity given by the leaf. The purpose of this study was to determine the effect of leaf age on the antibacterial activity of nagasari (Mesua ferrea L.).

Method Young and old leaves of Nagasari (*Mesua ferrea* L.) macerated with 96% ethanol. The ethanol extract was made at concentration of 1 mg / mL and 2.5 mg / mL. Antibacterial activity test was performed using the disc diffusion method with 10% DMSO as negative control and 30ug chloramphenicol as positive control. Inhibition zone was analyzed using Oneway ANOVA followed by LSD test.

Results : The results showed that the ethanol extract of the young leaves of Nagasari 1 mg / mL and 2.5 mg / mL resulted in an inhibition zone diameter of 8.7 mm and 9.3 mm, while the ethanol extract of the old leaves of Nagasari resulted in an inhibition zone diameter of 9.7 mm. and 11.3 mm.

Conclusion : There were differences in the antibacterial activity of the ethanol extract of young leaves and the ethanol extract of old leaves of Nagasari against *Staphylococcus aureus*. The ethanol extract of the lama leaves of Nagasari has higher antibacterial activity than the ethanol extract of the young leaves of Nagasari.

Keywords : *Ethanol extract of Nagasari leaf, young, old, Staphylococcus aureus.*