

## ABSTRAK

**Tessa Togatorop, NIM 4193520022, Uji Aktivitas Ekstrak Etanol Daun Pulutan (*Urena lobata* L.) terhadap Bakteri *Escherichia coli* dan *Staphylococcus aureus*.**

Penelitian ini bertujuan untuk mengetahui kandungan metabolit sekunder, aktivitas antibakteri ekstrak etanol daun pulutan (*U. lobata*) dan mengetahui Konsentrasi Hambat Minimum (KHM) dan Konsentrasi Bunuh Minimum (KBM) terhadap bakteri *E. coli* dan *S. aureus*. Uji skrining fitokimia dilakukan dengan beberapa pereaksi warna yang sesuai. Uji aktivitas antibakteri menggunakan metode difusi cakram terhadap bakteri *E. coli* dan *S. aureus*. Uji KHM dan KBM dilakukan dengan menghitung selisih nilai absorbansi setelah inkubasi dan sebelum inkubasi yang dapat menghambat dan membunuh bakteri uji. Hasil skrining fitokimia ekstrak etanol daun pulutan mengandung flavonoid, saponin, tanin, steroid dan triterpenoid. Hasil aktivitas antibakteri ekstrak etanol daun pulutan (*U. lobata*) terhadap bakteri *E. coli* pada konsentrasi 15%, 25%, 35%, 45%, 55% dan 65% berturut-turut adalah 4,1 mm, 4,2 mm, 4,9 mm, 3,1 mm, 4,6 mm, dan 4,3 mm dengan kategori lemah sedangkan pada bakteri *S. aureus* pada konsentrasi 15%, 25%, 35%, 45%, 55% dan 65% berturut-turut adalah 2,6 mm, 3,1 mm, 3,4 mm, 3,6 mm, 3,2 mm, dan 4,5 mm dengan kategori lemah. Hasil nilai KHM terhadap bakteri *E. coli* terdapat pada konsentrasi 15% sedangkan pada bakteri *S. aureus* pada konsentrasi 45%. Hasil nilai KBM terhadap bakteri *E. coli* dan *S. aureus* tidak didapat pada setiap perlakuan konsentrasi.

Kata Kunci : Pulutan (*Urena lobata* L.), Antibakteri, Konsentrasi Hambat Minimum, Konsentrasi Bunuh Minimum



## ABSTRACT

**Tessa Togatorop, NIM 4193520022, Activity Test of Pulutan Leaf Ethanol Extract (*Urena lobata* L.) against *Escherichia coli* and *Staphylococcus aureus* Bacteria.**

This study aims to determine the content of secondary metabolites, the antibacterial activity of the ethanol extract of pulutan leaves (*U. lobata*) and to determine the Minimum Inhibitory Concentration (MIC) and Minimum Killing Concentration (KBM) against *E. coli* and *S. aureus* bacteria. The phytochemical screening test was carried out with several suitable color reagents. Antibacterial activity test using disc diffusion method against *E. coli* and *S. aureus* bacteria. The MIC and MBC tests were carried out by calculating the difference in absorbance values after incubation and before incubation that could inhibit and kill the test bacteria. The results of the phytochemical screening of the ethanol extract of pulutan leaves contained flavonoids, saponins, tannins, steroids and triterpenoids. The results of the antibacterial activity of the ethanol extract of pulutan leaves (*U. lobata*) against *E. coli* bacteria at a concentration of 15%, 25%, 35%, 45%, 55% and 65% were 4,1 mm, 4,2 mm, 4,9 mm, 3,1 mm, 4,6 mm, and 4,3 mm were in the weak category whereas in *S. aureus* bacteria at concentrations of 15%, 25%, 35%, 45%, 55% and 65% respectively are 2,6 mm, 3,1 mm, 3,4 mm, 3,6 mm, 3,2 mm and 4,5 mm with a weak category. The results of the MIC value for *E. coli* bacteria were found at a concentration of 15% while for *S. aureus* bacteria at a concentration of 45%. The results of the KBM values for *E. coli* and *S. aureus* bacteria were not obtained in each concentration treatment.

Keywords : Pulutan (*Urena lobata* L.), Antibacterial, Minimum Inhibitory Concentration, Minimum Killing Concentration

