UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL BATANG SERAI (*Cymbopogon citratus*) TERHADAP BAKTERI *Staphylococcus aureus*

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ABSTRAK

Serai merupakan tanaman yang berkhasiat sebagai obat herbal alami dan memiliki kandungan senyawa bioaktif berupa *sitronellal* dan *geraniol* yang bersifat sebagai antibakteri. Tujuan penelitian ini untuk mengetahui perbedaan zona hambat antara ekstrak etanol batang serai (*Cymbopogon citratus*) terhadap bakteri *Staphylococcus aureus*. Sampel penelitian ini adalah hasil isolat murni *Staphylococcus aureus* atcc25923 yang di isolasi dari biakan murni *Staphylococcus aureus* atcc25923. Penelitian ini termasuk kedalam penelitian kuantitatif dengan metode uji antibakteri *Disc Diffusion* (Test kirby & baeur) dan dianalisa secara statistik menggunakan metode *One Way* anova. Hasil rata-rata diameter zona hambat terhadap *Staphylococcus aureus* pada konsentrasi 10%, 20%, 30%, 40%, dan 50% berturut-turut yaitu 1mm, 1.25mm, 2mm, 2.41mm dan 3mm. Hasil uji *One Way* Anova menunjukkan perbedaan secara nyata rata-rata diameter zona hambat pertumbuhan bakteri *staphylococcus aureus* antar kelompok perlakuan dengan nilai $p < 0,05$. Kesimpulan pada penelitian ini bahwa ekstrak etanol batang serai (*Cymbopogon citratus*) memiliki daya hambat yang lemah atau resisten berdasarkan pedoman *Clinical and Laboratory Standard Institute* (CLSI) tahun 2018 dengan nilai $\leq$ 12mm.

Kata kunci : Serai, Disc Diffusion, One Way Anova

ABSTRACT

Lemongrass is a plant that is efficacious as a natural herbal medicine and contains bioactive compounds in the form of citronella and geraniol which act as antibacterial. The purpose of this study was to determine the difference in the zone of inhibition between the ethanol extract of lemon grass (Cymbopogon citratus) against Staphylococcus aureus bacteria. The sample of this research is the result of pure isolate of Staphylococcus aureus atcc25923 isolated from pure culture of Staphylococcus aureus atcc25923. This research is a quantitative study with the Disc Diffusion antibacterial test method (Kirby & baeur test) and analyzed statistically using the One Way ANOVA method. The results of the average diameter of the inhibition zone against Staphylococcus aureus at concentrations of 10%, 20%, 30%, 40%, and 50%, respectively, were 1 mm, 1.25mm, 2mm, 2.41mm and 3mm. The results of the One Way Anova test showed a significant difference in the average diameter of the inhibition zone for the growth of staphylococcus aureus bacteria between the treatment groups with $p < 0.05$. The conclusion in this study is that the ethanolic extract of lemongrass (Cymbopogon citratus) has an inhibitory power that is included in the weak or resistant category based on the 2018 Clinical and Laboratory Standard Institute (CLSI) guidelines with a value of 12mm.

Keywords: Lemongrass, Disc Diffusion, One Way Anova