

ABSTRAK

Latar Belakang : Minyak atsiri daun kayu manis memiliki kandungan senyawa utama eugenol dan sinamaldehyd yang memiliki aktivitas antibakteri dalam menghambat pertumbuhan bakteri *Staphylococcus aureus*. Tujuan penelitian ini adalah memformulasikan sediaan gel dari berbagai konsentrasi minyak atsiri daun kayu manis sebagai bahan aktif kemudian dilakukan uji aktivitas antibakteri terhadap bakteri *Staphylococcus aureus*.

Metode : Konsentrasi minyak atsiri yang digunakan adalah 0,5% (F1), 1% (FII) dan 1,5% (FIII). Evaluasi fisik yang dilakukan meliputi uji organoleptik, homogenitas, pH, daya sebar, daya lekat, viskositas, stabilitas dan uji aktivitas antibakteri menggunakan metode sumuran. Hasil evaluasi uji organoleptik, homogen dan stabilitas dianalisis secara deskriptif sementara uji pH, daya sebar, daya lekat, viskositas dan aktivitas antibakteri dianalisis secara statistik menggunakan *One Way Anova*.

Hasil : Uji organoleptik didapatkan warna putih kekuningan (FI), kuning muda (FII) dan kuning (FIII), ketiga formula memiliki tekstur kental dengan bau khas minyak atsiri, homogen dan stabil. Hasil uji pH berkisar 4,88-5,4, daya sebar 5,425-5,575 cm, daya lekat 6,24-8,53 detik, viskositas 8.868-11.710 cps. Hasil uji antibakteri didapatkan diameter zona hambat sebesar 11,47 mm (FI), 15,75 mm (FII) dengan kategori kuat dan 20,58 mm (FIII) dengan kategori sangat kuat.

Kesimpulan : Ketiga formula memiliki evaluasi fisik sesuai dengan standar serta memiliki aktivitas antibakteri terhadap bakteri *Staphylococcus aureus*.

Kata kunci : Daun Kayu Manis (*Cinnamomum burmanni*), Minyak Atsiri, Gel, Antibakteri

ABSTRACT

Background : Cinnamon leaf essential oil contains the main compounds eugenol and cinnamaldehyde which have antibacterial activity in inhibiting the growth of *Staphylococcus aureus* bacteria. The aim of this research was to formulate a gel preparation from various concentrations of cinnamon leaf essential oil as an active ingredient and then test its antibacterial activity against *Staphylococcus aureus* bacteria.

Methods : The concentrations of essential oils used are 0.5% (F1), 1% (FII) and 1.5% (FIII). The physical evaluation carried out included organoleptic tests, homogeneity, pH, spreadability, stickiness, viscosity, stability and antibacterial activity tests using the well method. The evaluation results of the organoleptic, homogeneity and stability tests were analyzed descriptively while the pH, spreadability, stickiness, viscosity and antibacterial activity tests were analyzed statistically using *One Way Anova*..

Result : Organoleptic tests showed yellowish white (FI), light yellow (FII) and yellow (FIII), the three formulas had a thick texture with a characteristic odor of essential oils, were homogeneous and stable. The pH test results ranged from 4.88-5.4, spreadability 5.425-5.575 cm, adhesion power 6.24-8.53 seconds, viscosity 8,868-11,710 cps. The antibacterial test results showed that the diameter of the inhibition zone was 11.47 mm (FI), 15.75 mm (FII) in the strong category and 20.58 mm (FIII) in the very strong category.

Conclusion : The three formulas have physical evaluations in accordance with standards and have antibacterial activity against *Staphylococcus aureus* bacteria.

Keywords : Cinnamon leaf (*Cinnamomum burmanni*), Essential Oil, Gel, Antibacterial