ABSTRAK

FORMULASI GEL *FACIAL WASH* EKSTRAK METANOL BIJI PINANG

(Areca catechu Linn.)* DAN UJI DAYA HAMBAT *Staphylococcus aureus

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Sediaan *facial wash* komersial yang banyak dipasaran biasanya mengdanung bahan antibakteri kimia yang memiliki kdanungan alkohol isopropil, SLS, dan paraben yang berdampak negatif terhadap kesehatan seperti menyebabkan resitensis bakteri, membuat kulit kering, mengganggu sistem hormon. Sehingga diperlukan adanya inovasi baru dengan penggunaan antibakteri alami. Salah satu antibakteri alami yaitu biji pinang *(Areca catechu L.)* yang memiliki kdanungan alkaloid, flavonoid dan tanin sebagai antibakteri. Formulasi *facial wash* yang memanfaatkan bahan alam dapat digunakan sebagai alternatif pengobatan jerawat yang disebabkan bakteri *Staphylococcus aureus*, yang memiliki efek samping lebih sedikit dibdaningkan dengan penggunaan antibakteri berbahan kimia. Tujuan penelitian ini untuk mengetahui evaluasi mutu fisik sediaan gel *facial wash* ekstrak biji pinang serta uji daya hambat terhadap pertumbuhan *Staphylococcus aureus*. Penelitian ini menggunakan metode penelitian eksperimental laboratorium dengan membuat sediaan gel *facial wash* menggunakan ekstrak biji pinang yaitu 0% (F0), 2,5% (F1), 5% (F2), dan 7,5% (F3). Data hasil evaluasi mutu sediaan dianalisis dengan metode deskriptif kualitatif dan membdaningkan dengan SNI sedangkan hasil uji aktivitas antibakteri dianalisis menggunakan One Way ANOVA dengan taraf signifikansi 95%. Hasil penelitian menunjukkan bahwa hasil uji organoleptik berwarna merah, homogen, pH 6-6,5, viskositas 3067,9-3467,1 cPs, daya sebar 5,1-5,6 cm, dan daya busa 84,3-93,1%. Sediaan gel *facial wash* ekstrak biji pinang memiliki daya hambat terhadap pertumbuhan bakteri *Staphylococcus aureus* ($p < 0,05$). Formula 3 dengan konsentrasi ekstrak 7,5% mempunyai daya hambat paling baik dengan rata-rata diameter zona hambat sebesar 10,4 mm.

Kata Kunci: *Biji Pinang, Gel, Facial Wash, Staphylococcus aureus*

ABSTRACT
FORMULATION OF FACIAL WASH GEL METHANOL EXTRACT OF
(Areca catechu Linn.) AND TEST OF INHIBITANCE AGAINST
Staphylococcus aureus

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Commercial facial wash preparations that are widely marketed usually contain chemical antibacterial ingredients that contain isopropyl alcohol, SLS, and parabens which have negative impacts on health such as causing bacterial resistance, making the skin dry, disrupting the hormonal system. So a new innovation is needed with the use of natural antibacterials. One of the natural antibacterials is areca nut (*Areca catechu L.*) which contains alkaloids, flavonoids and tannins as antibacterials. Facial wash formulations that utilize natural ingredients can be used as an alternative to acne treatment caused by *Staphylococcus aureus* bacteria, which has fewer side effects compared to the use of chemical-based antibacterials. This study aimed to evaluate the physical quality of the facial wash gel preparations containing areca nut seed extract and assess their inhibitory activity against *Staphylococcus aureus*. Four formulations were prepared with varying extract concentrations: 0% (F0), 2.5% (F1), 5% (F2), and 7.5% (F3). The physical quality of the preparation was evaluated using qualitative descriptive methods and compared against SNI Standards. The antibacterial activity of the formulations was assessed using one-way ANOVA with ith a significance level of 95%. The results demonstrated that the characteristic of facial wash gel extract methanol areca nut results were red, smell is typical areca nut, texture is thick, homogeneous, pH 6-6.5, viscosity 3067.9-3467.1 cPs, spreadability 5.1-5.6 cm, and foaming power 84.3-93.1%. Formula 3 with an extract concentration of 7.5% have compound with alkaloid, flavonoid, saponin, and tannin demonstrating the strongest inhibitory effect, with an average inhibition zone diameter of 10.4 mm.

Keywords: *Areca Nut, Gel, Facial Wash, Staphylococcus aureus*