

ABSTRAK

Esra Aruan, Nim 4203210016 (2024). Formulasi dan Uji Aktivitas Antibakteri Sediaan Deodoran Spray Ekstrak Etanol Daun Sarang Banua (*Clerodendrum fragrans* Vent Willd) Terhadap Bakteri Penyebab Bau Badan.

Keringat berlebihan dapat menimbulkan masalah seperti bau badan. Deodoran adalah produk kosmetik yang digunakan untuk mengatasi bau badan akibat keringat yang bercampur dengan bakteri. Penelitian ini bertujuan untuk mengetahui potensi ekstrak etanol daun sarang banua sebagai bahan aktif deodoran *spray* ditinjau dari kemampuannya menghambat pertumbuhan bakteri *Staphylococcus epidermis* dan *Staphylococcus aureus* penyebab bau badan. Metode yang dipakai adalah difusi cakram, menggunakan RAL dengan lima perlakuan. Ekstrak dan sediaan deodoran dibuat dalam 3 konsentrasi ekstrak 10%, 20% dan 30%. Hasil penelitian menunjukkan bahwa konsentrasi 30% ekstrak etanol daun sarang banua paling efektif menghambat pertumbuhan bakteri *S. epidermis* dan *S. aureus* dengan rata-rata zona hambat 10,5 mm dan 11,06 mm. Hasil uji sediaan deodoran *spray* menunjukkan bahwa rata-rata zona hambat formula F3 (30% ekstrak) yaitu 8,16 mm terhadap bakteri *S. epidermis* dan 7,53 mm terhadap bakteri *S. aureus*. Zona hambat F2 (20% ekstrak) berturut-turut ialah 7,26 mm dan 7,0 mm. Hasil uji fisik dan kimia menunjukkan ketiga sediaan deodoran *spray* memiliki bentuk sediaan cair, aroma khas daun sarang banua, warna hijau kehitaman, homogen dan pH 4. Viskositas F1 (1,6919 cP) dan F2 (1,7145 cP) sesuai standar sedangkan F3 (2,0857 cP) melebihi standar. Hasil uji iritasi menunjukkan bahwa F1 dan F2 tidak menimbulkan iritasi sedangkan F3 menimbulkan iritasi pada 4 dari 20 sukarelawan. Berdasarkan hasil uji aktivitas antibakteri dan uji fisik dan kimia, sediaan deodoran *spray* F2 dengan konsentrasi ekstrak sarang banua 20% adalah yang terbaik.

Kata kunci: Deodoran *spray*, daun sarang banua (*Clerodendrum fragrans* Vent Willd), antibakteri



ABSTRACT

Esra Aruan, Nim 4203210016 (2024). Formulation and Antibacterial Activity Test of Deodorant Preparation Spray With Ethanol Extract of Sarang Banua Leaves (*Clerodendrum fragrans* Vent Willd) Against Bacteria that Cause Body Odor.

Excessive sweating can cause problems such as body odor. Deodorant is a cosmetic product used to overcome body odor due to sweat mixed with bacteria. This research aims to determine the potential of ethanol extract of sarang banua leaves as an active ingredient in deodorant spray in terms of its ability to inhibit the growth of *Staphylococcus epidermis* and *Staphylococcus aureus* bacteria that cause body odor. The method used is disc diffusion, using RAL with five treatments. The extract and deodorant preparations were made in 3 extract concentrations of 10%, 20% and 30%. The results showed that a concentration of 30% of ethanol extract of sarang banua was most effective in inhibiting bacterial growth of *S. epidermis* and *S. aureus* bacteria with an average inhibition zone of 10,5 mm and 11,06 mm. The results of the deodorant spray preparation test showed that the average inhibition zone of formula F3 (30% extract) was 8.16 mm against *S.epidermis* bacteria and 7,53 mm against *S.aureus* bacteria. The inhibition zone of F2 (20% extract) was 7,26 mm and 7,0 mm, respectively. The results of physical and chemical tests showed that the three deodorant spray preparations had a liquid dosage form, a distinctive aroma of sarang banua leaves, a blackish green color, homogeneous and a pH of 4. The viscosity of F1 (1,6919 cP) and F2 (1,7145 cP) was in accordance with the standard while F3 (2,0857 cP) exceeded the standard. The results of the irritation test showed that F1 and F2 did not cause irritation while F3 caused irritation in 4 out of 20 volunteers. Based on the results of antibacterial activity tests and physical and chemical tests, the F2 deodorant spray preparation with a concentration of 20% of sarang banua extract is the best.

Keywords: Deodorant spray, sarang banua leaves (*Clerodendrum fragrans* Vent Willd), antibacterial