

ABSTRAK

AGRO ARIAWAN PEGIA, 2022. FORMULASI DAN UJI AKTIVITAS ANTIBAKTERI SABUN CAIR, EKSTRAK BUAH WULUH (*Averrhoa bilimbi* L) TERHADAP *Staphylococcus epidermidis* DESKRIPSI FAKULTAS FARMASI UNIVERSITAS BUDIRA BUDIRA. Dibimbing oleh apt. Vivin Nopiyanti, M.Sc dan Drs. apt., Widodo Priyanto M.M

Kulit adalah organ yang menutupi seluruh tubuh manusia, dan memiliki kekuatan perlindungan terhadap pengaruh luar. Salah satu jenis gangguan kulit yang sering terjadi adalah jerawat. Salah satu bakteri yang umum menginfeksi jerawat adalah *Staphylococcus epidermidis*. Berdasarkan permasalahan tersebut, peneliti tertarik untuk membuat sediaan sabun cair ekstrak belimbing wuluh (*Averrhoa bilimbi* L) yang mengandung tanin, alkaloid, saponin dan steroid/triterpenoid yang memiliki aktivitas antibakteri.

Ekstrak etanol belimbing wuluh diekstraksi dengan cara maserasi menggunakan pelarut etanol 96%, lalu diformulasi sediaan menggunakan variasi konsentrasi 0%, 8% 12% 16%. Mutu fisik sabun cair diuji organoleptis, daya busa, pH, viskositas, homogenitas, stabilitas, dan aktivitas antibakteri terhadap *S. Epidermidis*. Aktivitas antibakteri diuji dengan menggunakan metode difusi sumuran. Data yang diperoleh kemudian diolah secara statistik dengan uji *Shapiro-Wilk*.

Hasil penelitian formula sediaan sabun cair ekstrak etanol buah belimbing wuluh (*Averrhoa bilimbi* L) memiliki uji mutu fisik yang baik, dan kestabilan yang kurang baik, namun masih memenuhi standar yang telah ditentukan. Sediaan sabun cair ekstrak buah belimbing wuluh pada konsentrasi 8%, dan 12%, memiliki diameter hambat berturut – turut sebesar 16,66 mm dan 19,33 mm dengan kategori kuat, dan konsentrasi 16% dengan diameter hambat 20,55 mm dengan kategori sangat kuat.

Kata kunci : Sabun cair, ekstrak belimbing wuluh (*Averrhoa bilimbi* L), *Staphylococcus epidermidis*, aktivitas antibakteri

ABSTRACT

AGRO ARIAWAN PEGIA, 2022. FORMULATING AND TESTING OF ANTIBACTERIAL ACTIVITY OF LIQUID SOAP, WULUH (*Averrhoa bilimbi* L) FRUIT EXTRACT AGAINST *Staphylococcus epidermidis* DESCRIPTION OF THE FACULTY OF PHARMACEUTICAL FACULTY OF SETIA BUDI UNIVERSITY. Supervised by apt. Vivin Nopiyanti, M.Sc and Drs. apt., Widodo Priyanto M.M

The skin is an organ that covers the entire human body, and has the power of protection against outside influences. One type of skin disorder that often occurs is acne. One of the common bacteria that infects acne is *Staphylococcus epidermidis*. Based on these problems, researchers are interested in making liquid soap preparations of starfruit extract (*Averrhoa bilimbi* L) which contain tannins, alkaloids, saponins and steroids/triterpenoids which have antibacterial activity.

The ethanolic extract of starfruit was extracted by maceration using 96% ethanol solvent, then the preparation was formulated using various concentrations of 0%, 8% 12% 16%. The physical quality of liquid soap was tested for organoleptic, foaming power, pH, viscosity, homogeneity, stability, and antibacterial activity against *S. Epidermidis*. Antibacterial activity was tested using the well diffusion method. The data obtained were then processed statistically with the *Shapiro-Wilk test*.

The results of the research on liquid soap formulations with ethanol extract of star fruit (*Averrhoa bilimbi* L) had good physical quality tests, and poor stability, but still met the predetermined standards. The liquid soap preparations of star fruit extract at concentrations of 8% and 12%, had inhibitory diameters of 16.66 mm and 19.33 mm in the strong category, and a concentration of 16% with an inhibitory diameter of 20.55 mm in the very category. strong.

Keywords : Liquid soap, star fruit extract (*Averrhoa bilimbi* L), *Staphylococcus epidermidis*, antibacterial activity