

Universitas Ngudi Waluyo
Program Studi Farmasi, Fakultas Kesehatan
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Ilham Ma'arif
051211059

**FORMULASI DAN UJI KARAKTERISTIK FISIK SEDIAAN SAMPO
INFUSA BUNGA MAWAR (*Rosa Damascena* P.Mill) TERHADAP
PENGHAMBATAN BAKTERI
*Staphylococcus Aureus***

ABSTRAK

Latar Belakang: *Rosa damascena* P. Mill diketahui memiliki kandungan senyawa aktif seperti flavonoid dan tanin yang berpotensi sebagai antibakteri. *Staphylococcus aureus* merupakan salah satu bakteri penyebab ketombe yang umum ditemukan pada kulit kepala. Oleh karena itu, diperlukan sediaan topikal seperti sampo yang mengandung bahan alam dengan aktivitas antibakteri.

Tujuan: Penelitian ini bertujuan untuk membuat sediaan sampo gel infusa bunga mawar dengan variasi konsentrasi 10, 20, dan 30%, serta mengevaluasi karakteristik fisik, stabilitas fisik, dan aktivitas antibakterinya terhadap bakteri *Staphylococcus aureus*.

Metode: Penelitian ini bersifat eksperimental. Infusa bunga mawar dibuat dengan metode perebusan, lalu diformulasikan menjadi sampo gel dalam tiga konsentrasi. Karakteristik fisik diuji melalui parameter organoleptis, pH, viskositas, homogenitas, dan stabilitas busa. Stabilitas fisik diuji menggunakan metode cycling test selama 14 hari. Aktivitas antibakteri diuji secara *in vitro* menggunakan metode difusi cakram terhadap bakteri *Staphylococcus aureus*.

Hasil: Hasil uji menunjukkan bahwa semua formula memiliki karakteristik fisik yang sesuai standar. Formula dengan konsentrasi 30% menunjukkan daya hambat tertinggi terhadap *Staphylococcus aureus*, dengan diameter zona hambat 26,73 melebihi formula lainnya. Uji stabilitas fisik juga menunjukkan bahwa ketiga formula stabil selama masa pengujian.

Kesimpulan: Sediaan gel sampo infusa bunga mawar dapat diformulasikan dengan baik dan memiliki aktivitas antibakteri terhadap *Staphylococcus aureus*, terutama pada konsentrasi 30% dengan diameter zona hambat 26,73. Formula tersebut juga memenuhi karakteristik fisik dan stabilitas yang disyaratkan untuk sediaan topikal.

Kata Kunci: *Rosa damascena*, infusa bunga mawar, sampo gel, antibakteri, *Staphylococcus aureus*.

Ngudi Waluyo University
Bachelor of Pharmacy Study Program, Faculty Of Health
Final Project, 19 July 2025
Ilham Ma'arif
051211059

**FORMULATION AND TEST OF THE PHYSICAL CHARACTERISTICS OF
ROSE FLOWER INFUSION SHAMPOO (*Rosa Damascena P.Mill*)
PREPARATION AGAINST BACTERIAL INHIBITION *Staphylococcus
Aureus*
ABSTRACT**

Background: *Rosa damascena P. Mill* is known to contain active compounds such as flavonoids and tannins with potential antibacterial properties. *Staphylococcus aureus* is one of the common bacteria found on the scalp that contributes to dandruff formation. Therefore, a topical preparation such as shampoo containing natural antibacterial agents is needed.

Objective: This study aims to formulate a gel shampoo preparation containing *Rosa damascena* infusions with concentrations of 10, 20, and 30%, and to evaluate its physical characteristics, physical stability, and antibacterial activity against *Staphylococcus aureus*.

Methods: This research was experimental in design. The rose infusion was prepared using the decoction method and formulated into gel shampoo at three different concentrations. The physical characteristics were evaluated based on organoleptic properties, pH, viscosity, homogeneity, and foam stability. The physical stability was assessed using a 14-day cycling test. The antibacterial activity was tested in vitro using the disc diffusion method against *Staphylococcus aureus*.

Results: The results showed that all formulas met the required physical characteristic standards. The 30% concentration formula demonstrated the highest inhibition against *Staphylococcus aureus*, with a larger inhibition zone compared 26,73 to other formulations. The physical stability tests indicated that all three formulas remained stable during the testing period.

Conclusion: The *Rosa damascena* infusion gel shampoo can be properly formulated and has antibacterial activity against *Staphylococcus aureus*, particularly at a 30% concentration inhibition zone compared 26,73. This formulation also meets the required physical and stability criteria for topical preparations.

Keywords: *Rosa damascena*, rose infusion, gel shampoo, antibacterial, *Staphylococcus aureus*.