FORMULASI DAN EVALUASI SEDIAAN LIP BALM EKSTRAK ETANOL 96% BUNGA TELANG *(Clotoria Ternatea L)* DENGAN VARIASI *BEESWAX*

ABSTRAK

Bunga telang (*Clitoria ternatea L.*) mengandung antosianin dan senyawa bioaktif yang berpotensi dimanfaatkan sebagai bahan aktif alami dalam sediaan kosmetik, khususnya lip balm. Namun, variasi konsentrasi ekstrak dan beeswax sebagai basis dapat memengaruhi karakteristik fisik sediaan. Penelitian ini bertujuan untuk mengevaluasi pengaruh variasi konsentrasi ekstrak bunga telang dan beeswax terhadap mutu fisik lip balm. Ekstrak diperoleh dengan metode maserasi menggunakan etanol 96% dan dilakukan skrining fitokimia. Sediaan diformulasikan dalam tiga formula dengan variasi konsentrasi ekstrak (6%, 8%, 10%) dan beeswax (7,5%, 10%, 15%). Evaluasi meliputi uji organoleptis, homogenitas, daya sebar, pH, titik lebur, dan daya oles, kemudian dianalisis menggunakan One Way ANOVA. Hasil menunjukkan rendemen ekstrak sebesar 22,5% dengan kandungan alkaloid, flavonoid, saponin, tanin, dan triterpenoid. Seluruh formula homogen, bertekstur halus, dan memiliki pH 3,83–4,02 yang aman untuk bibir. Variasi konsentrasi tidak berpengaruh signifikan terhadap daya sebar ($p=0,133$) dan pH ($p=0,562$), tetapi peningkatan beeswax meningkatkan titik lebur dari 50°C hingga 60°C. Formula dengan ekstrak 10% dan beeswax 15% menunjukkan kestabilan fisik dan termal terbaik serta nyaman digunakan. Disimpulkan bahwa ekstrak bunga telang berpotensi diformulasikan dalam lip balm dengan karakteristik fisik yang memenuhi persyaratan.

Kata kunci: Beeswax, Bunga Telang (*Clitoria ternatea L.*), Etanol 96%, Lip Balm

FORMULATION AND EVALUATION OF LIP BALM PREPARATION MADE FROM 96% ETHANOL (Clitoria Ternatea L) WITH BEESWAX VARIATION

ABSTRACT

Butterfly pea flower (Clitoria ternatea L.) contains anthocyanins and bioactive compounds with potential application as natural active ingredients in cosmetic preparations, particularly lip balm. However, variations in extract and beeswax concentrations as the base may influence the physical characteristics of the product. This study aimed to evaluate the effect of different concentrations of butterfly pea flower extract and beeswax on the physical quality of lip balm formulations. The extract was obtained by maceration using 96% ethanol and subjected to phytochemical screening. Three formulations were prepared with extract concentrations of 6%, 8%, and 10%, and beeswax concentrations of 7.5%, 10%, and 15%. Evaluations included organoleptic test, homogeneity, spreadability, pH, melting point, and smearability, followed by One Way ANOVA analysis. The extract yield was 22.5% and contained alkaloids, flavonoids, saponins, tannins, and triterpenoids. All formulations were homogeneous, smooth in texture, and had pH values ranging from 3.83 to 4.02, which are safe for lip application. Concentration variations did not significantly affect spreadability ($p=0.133$) and pH ($p=0.562$), while increased beeswax concentration raised the melting point from 50°C to 60°C. The formulation containing 10% extract and 15% beeswax demonstrated the best physical and thermal stability and was comfortable to use. It can be concluded that butterfly pea flower extract has potential for lip balm formulation with acceptable physical characteristics.

Keywords: *Beeswax, Butterfly Pea Flower (Clitoria Ternatea L.), 96% Ethanol, Lip Balm*