ABSTRAK

FORMULASI DAN UJI STABILITAS FISIK SEDIAAN SIRUP EKSTRAK BUNGA TELANG (*Clitoria ternatea* L.) (Oleh Utari Ristiana; Pembimbing Fairuz Yaumil Afra dan Aprillia Rahmadina; 2024; 64 Halaman)

Bunga telang dapat digunakan untuk berbagai pengobatan salah satunya sebagai antioksidan. Bunga telang mempunyai kelarutan yang mudah larut sehingga dibuat dalam sediaan sirup, dimana sediaan sirup lebih cepat diabsorbsi oleh tubuh. Dalam formulasi sirup zat aktif yang digunakan yaitu bunga telang (*Clitoria ternatea* L.) Ekstrak etanol 70% bunga telang (*Clitoria ternatea* L.) diketahui memiliki aktivitas antioksidan yang sangat kuat dengan hasil IC_{50} yang diperoleh yaitu sebesar 41,36 ppm yang dapat menetralkan dan menghambat reaksi oksidasi. Dalam formulasi sirup digunakan kombinasi variasi propilen glikol. Tujuan penelitian ini untuk mengetahui pengaruh variasi propilen glikol terhadap karakteristik sediaan sirup berdasarkan hasil evaluasi fisik serta mengetahui stabilitas sediaan melalui metode *freeze thaw*. Bunga telang diekstraksi dengan metode maserasi menggunakan pelarut etanol 70%. Evaluasi fisik formula sirup meliputi uji organoleptis, uji homogenitas, uji pH, uji viskositas, uji kejernihan, uji bobot jenis, uji volume terpindahkan. Hasil penelitian menunjukkan bahwa sediaan sirup berwarna cokelat kemerahan, bau essense anggur, rasa manis, homogen, jernih tidak terjadi perubahan sebelum dan sesudah *freeze thaw*. Berdasarkan hasil penelitian menunjukkan bahwa formula 3 dan 4 dengan propilen glikol 25% dan 30% merupakan formula optimum sebagai sediaan sirup ekstrak etanol bunga telang berdasarkan uji pH, uji viskositas, uji bobot jenis, uji volume terpindahkan yang sesuai persyaratan dan viskositas dan bobot jenis yang lebih stabil dibandingkan formula yang lainnya baik sebelum maupun sesudah *freeze thaw*.

Kata Kunci : Bunga telang (*Clitoria ternatea* L.), ekstrak etanol 70%, sirup, propilen glikol

ABSTRACT

FORMULATION AND PHYSICAL STABILITY TEST OF TELANG FLOWER EXTRACT SYRUP PREPARATION (*Clitoria ternatea* L.) (By Utari Ristiana; Supervisor Fairuz Yaumil Afra and Aprillia Rahmadina; 2024; 64 Pages)

Butterfly pea flowers can be used for various treatments, one of which is as an antioxidant. Butterfly pea flowers have easy solubility so they are made into syrup preparations, where the syrup preparations are absorbed more quickly by the body. In the syrup formulation, the active substance used is butterfly pea flower (*Clitoria ternatea* L.). The 70% ethanol extract of butterfly pea flowers (*Clitoria ternatea* L.) is known to have very strong antioxidant activity with the IC_{50} obtained being 41.36 ppm which can neutralize and inhibit oxidation reactions. In the syrup formulation, various combinations of propylene glycol are used. The aim of this research is to determine the effect of variations in propylene glycol on the characteristics of syrup preparations based on the results of physical evaluations and to determine the stability of the preparations using the *freeze thaw* method. Butterfly pea flowers were extracted using the maceration method using 70% ethanol solvent. Physical evaluation of the syrup formula includes organoleptic test, homogeneity test, pH test, viscosity test, clarity test, specific gravity test, transferred volume test. The results of the research showed that the syrup preparation had a reddish brown color, the smell of grape essence, sweet taste, homogeneous, clear and did not change before and after *freeze thaw*. Based on the research results, it shows that formulas 3 and 4 with 25% and 30% propylene glycol are the optimum formulas for preparing ethanol extract syrup from butterfly pea flowers based on the pH test, viscosity test, specific gravity test, transferred volume test that meet the requirements and the appropriate viscosity and specific gravity. more stable than other formulas both before and after *freeze thaw*.

Keywords : Butterfly flower (*Clitoria ternatea* L.), Ethanol 70% extract, Syrup, propylene glycol