PENGARUH VARIASI KONSENTRASI ETANOL TERHADAP KADAR TOTAL TANIN EKSTRAK DAUN KUPU-KUPU (*Bauhinia purpurea* L.)

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INTISARI

Latar Belakang: Tanaman kupu-kupu (*Bauhinia purpurea L.*) merupakan salah satu tanaman obat berpotensi dapat mengatasi berbagai jenis penyakit serta memiliki kandungan tanin. Senyawa tanin pada daun kupu-kupu dapat diekstraksi melalui proses maserasi. Pelarut yang digunakan pada ekstraksi yaitu etanol 70% dan etanol 96% yang berpengaruh terhadap total kadar tanin.
Tujuan Penelitian: Mengetahui pengaruh variasi konsentrasi pelarut etanol 70% dan etanol 96% terhadap kadar total tanin dalam ekstrak daun kupu-kupu (*Bauhinia purpurea* L.).
Metode Penelitian: Serbuk halus daun kupu-kupu di maserasi (1:10) dengan pelarut etanol 70% dan etanol 96% masing-masing sebanyak 3 kali kemudian diuapkan dengan suhu 50-60ºC hingga menjadi ekstrak kental. Analisis kualitatif berupa organoleptis, skrining fitokimia, kromatografi lapis tipis dan kuantitatif dengan Spektrofotometri UV-Vis terhadap total tanin menggunakan asam galat sebagai pembanding sehingga dinyatakan dalam mg GAE/g ekstrak.
Hasil Penelitian: Pada ekstrak etanol 70% maupun 96% daun kupu-kupu terhadap analisis kualitatif uji organoleptis diperoleh warna hijau kehitaman, tekstur kental, bau khas, dan rasanya hambar. Kemudian ekstrak daun kupu-kupu mengandung senyawa aktif yaitu flavonoid, saponin, dan tanin. Nilai Rf antara standar dan sampel positif karena masuk rentang antara ±0,05. Pada analisis kuantitatif kadar total tanin pada ekstrak kupu-kupu etanol 70% diperoleh rata-rata 17,914 ± 2,049 mg GAE/g, sedangkan pada etanol 96% diperoleh 18,623 ± 1,766 mg GAE/g.
Kesimpulan: Variasi konsentrasi etanol 70% dan etanol 96% terhadap total tanin tidak ada pengaruh secara signifikan, namun ekstrak etanol 96% memiliki kadar total tanin yang lebih tinggi daripada ekstrak etanol 70%.

Kata Kunci: B. purpurea, daun kupu-kupu, Tanin, etanol 70%, etanol 96%.

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EFFECT OF VARIATION OF ETANOL CONCENTRATION ON TOTAL TANIN CONTENT OF KUPU-KUPU (*Bauhinia purpurea* L.) LEAF EXTRACT

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ABSTRACT

Background: Butterfly plant (*Bauhinia purpurea* L.) is one of the medicinal plants that has the potential to overcome various types of diseases and has tanin content. Tanin compounds in butterfly leaves can be extracted through a maceration process. The solvent used in the extraction is 70% ethanol and 96% ethanol which affects the total tanin content.
Objective: Knowing the effect of variations in solvent concentrations of 70% ethanol and 96% ethanol on total tanin levels in butterfly leaf extract (*Bauhinia purpurea* L.).
Methods: The fine powder of butterfly leaf was macerated (1:10) with 70% ethanol and 96% ethanol, each three times, then evaporated at 50-60ºC until a thick extract was obtained. Qualitative analysis included organoleptic assessment, phytochemical screening, and thin-layer chromatography, while quantitative analysis was done using UV-Vis spectrophotometry to measure total tannins, with gallic acid as a standard, expressed in mg GAE/g extract.
Results: In the 70% and 96% ethanol extracts of butterfly leaves, qualitative organoleptic analysis revealed a greenish-black color, thick texture, characteristic odor, and bland taste. The butterfly leaf extract contains active compounds, including flavonoids, saponins, and tannins. The Rf values for the standard and sample were positive, falling within the range of ±0.05. Quantitative analysis showed that the total tannin content in the 70% ethanol extract averaged 17.914 ± 2.049 mg GAE/g, while in the 96% ethanol extract, it was 18.623 ± 1.766 mg GAE/g.
Conclusion: Varying concentrations of 70% ethanol and 96% ethanol on total tanins did not have a significant effect, but 96% ethanol extract had higher total tanin levels than 70% ethanol extract.

Keywords: B. purpurea, butterfly leaf, tanin, 70% ethanol, 96% ethanol.

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