# INTISARI

Indonesia merupakan salah satu negara yang memliki banyak keanekaragaman hayati. Namun hingga saat ini pemanfaatan tanaman berkhasiat obat tersebut belum optimal. Salah satu tanaman berkhasiat obat yang belum banyak dimanfaatkan adalah pecut kuda (*Stachytarpheta jamaicensis* (L). Vahl). Daun pecut kuda diketahui mempunyai aktivitas antioksidan dan mengandung senyawa fenol serta flavonoid. Senyawa flavonoid dalam ekstrak etanolik daun pecut kuda dapat ditingkatkan kadarnya melalui fraksinasi untuk menghilangkan zat *ballast* seperti klorofil dan resin. Penelitian ini bertujuan untuk mengetahui kandungan fenolik dan flavonoid total pada fraksi-fraksi ekstrak etanolik daun pecut kuda beserta aktivitas penangkapan radikal DPPH (2,2-difenil-1-pikrilhidrazil).

Serbuk daun pecut kuda dimaserasi dengan etanol 70% kemudian dilakukan fraksinasi terhadap ekstrak kental menggunakan pelarut n-heksan, kloroform, dan etil asetat. Fraksi-fraksi ditentukan kandungan fenolik dan flavonoid total serta aktivitas penangkapan radikal DPPH. Analisis hasil menggunakan uji *One Way* ANOVA untuk mengetahui perbedaan fenolik total, flavonoid total dan aktivitas penangkapan radikal DPPH fraksi.

Fraksi etil asetat memiliki kandungan fenolik dan flavonoid total tertinggi masing-masing sebesar 36,44±0,44 %b/b EAG dan 7,34±1,35% b/b EL. Fraksi etil asetat memiliki aktivitas penangkapan radikal DPPH tertinggi dengan $IC_{50}$ 2,99 ± 0,08 ppm berbeda signifikan dengan fraksi-fraksi lain. Apabila dibandingkan dengan kontrol positif luteolin ($IC_{50}$ 1,55±0,18 ppm) fraksi etil asetat memiliki aktivitas penangkapan radikal yang lebih rendah.

**Kata Kunci**: *Stachytarpheta jamaicensis*, fraksinasi, DPPH, flavonoid total, fenolik total

# ABSTRACT

Indonesia is one of many countries with biodiversity. However, the utilization of medicinal plants has not been optimal recently. One of those plants that has not been widely utilized is blue-snakeweed (*Stachytarpheta jamaicensis* (L). Vahl). Its leaf has been known to have an antioxidant activity and contain flavonoids and phenolic compounds. Flavonoid compounds in ethanolic extract of blue-snakeweed leaves can be increased through fractionation to remove the ballast substances such as chlorophyll and resin. This research is aimed at finding the total phenolics and flavonoid contents at fractions of ethanolic extract of blue-snakeweed leaves as well as the scavenging activity of radical DPPH (2,2-diphenyl-1-picrylhydrazyl).

Powder of blue-snakeweed leaves was extracted with 70% ethanol then fractionated using n-hexane, chloroform, and ethyl acetate. After that, the researcher determined the total phenolic and flavonoid contents of the fractions as well as their scavenging activity of radical DPPH. Furthermore, results that have been obtained were tested by One Way ANOVA to determine differences total phenolic, total flavonoids, radical scavenging activity.

Ethyl acetate fraction had the highest total phenolic and flavonoid contents of 36,44±0,44 %b/b GAE and 7,34±1,35% b/b LE. The ethyl acetate fractions also have the highest scavenging activity of radical DPPH with $IC_{50}$ of 2,99 ± 0,08 ppm which was significantly different from other fractions. When compared with positive control luteolin ($IC_{50}$ 1,55±0,18 ppm) the ethyl acetate fraction has a lower radical scavenging activity.

**Keywords**: *Stachytarpheta jamaicensis*, fractionation, DPPH, total flavonoid, total phenolic