SEPARATION OF FLAVONOIDS AND TOXICITY TEST OF SEMAMBU RATTAN LEAVES (Calamus Scipionum **Lour***) USING THE BRINE SHRIMP LETHALITY TEST (BSLT) METHOD*

Abstract

Semambu rattan (Calamus Scipionum Lour) is one of the rattans that grows in the forests of Indonesia, especially South Sumatra. Semambu rattan leaves contain secondary metabolite compounds that have the potential to be developed in the world of health. This development certainly needs to be supported by scientific studies, in order to determine the safety of the product before use. This is done to avoid side effects that can arise from the content of semambu rattan leaves. This research aims to determine the content of secondary metabolite compounds in semambu rattan leaves, separate flavonoid compounds which have many health benefits, and test the toxicity levels of semambu rattan leaves. Based on phytochemical screening of semambu rattan leaves (Calamus scipionum Lour), the ethanol extract was positive for containing flavonoids, tannins, saponins and steroids. The positive n-hexane fraction contains flavonoid and steroid compounds. The ethyl acetate fraction positively contained flavonoid compounds. The LC50 values for the ethanol extract of semambu rattan leaves were (162.30 ppm), the n-hexane fraction (184.99 ppm) and the ethyl acetate fraction (241.99 ppm). The ethanol extract, n-hexane fraction, and ethyl acetate fraction of semambu rattan leaves have a range of 100-1000 ppm which is classified as toxic.

Keywords: *Semambu Rattan, Flavonoids, Toxicity*

PEMISAHAN FLAVONOID DAN UJI TOKSISITAS DAUN ROTAN SEMAMBU (*Calamus Scipionum* Lour) DENGAN METODE *BRINE SHRIMP LETHALITY TEST* (BSLT)

Abstrak

Rotan semambu (*Calamus Scipionum* Lour) merupakan salah satu rotan yang tumbuh di hutan Indonesia khususnya Sumatera Selatan. Daun rotan semambu mengandung senyawa metabolit sekunder yang berpotensi dapat dikembangkan dalam dunia kesehatan. Pengembangan ini tentunya perlu didukung dengan kajian ilmiah, guna mengetahui keamanan produk sebelum digunakan. Hal ini dilakukan untuk menghindari efek samping yang dapat timbul dari kandungan daun rotan semambu tersebut. Penelitian ini bertujuan untuk mengetahui kandungan senyawa metabolit sekunder yang ada di daun rotan semambu, memisahkan senyawa flavonoid yang memiliki banyak manfaat bagi kesehatan, serta menguji kadar toksisitas daun rotan semambu. Berdasarkan skrining fitokimia daun rotan semambu (*Calamus scipionum* Lour), ekstrak etanol positif mengandung senyawa flavonoid, tanin, saponin, dan steroid. Fraksi n-heksana positif mengandung senyawa flavonoid dan steroid. Fraksi etil asetat positif mengandung senyawa flavonoid. Hasil nilai LC_{50} ekstrak etanol daun rotan semambu yaitu (162,30 ppm), fraksi n-heksana (184,99 ppm) dan fraksi etil asetat (241,99 ppm). Ekstrak etanol, fraksi n-heksana, dan fraksi etil asetat daun rotan semambu memiliki rentang 100-1000 ppm yang tergolong toksik.

Kata Kunci: Rotan Semambu, Flavonoid, Toksisitas