

ABSTRAK

RAFIAH ARSYAD. *Skrining Fitokimia dan Uji Sitotoksik Fraksi Biji Buah Bagore (Caesalpinia crista L.) Menggunakan Metode Brine Shrimp Lethality Test (BSLT)* (Dibimbing oleh **Asni Amin** dan **Risda Waris**).

Potensi toksik biji buah bagore diketahui melalui uji sitotoksik dengan metode *Brine Shrimp Lethality Test* (BSLT). Tujuan penelitian ini adalah untuk mengetahui kandungan kimia biji buah bagore dan nilai (LC50) atau *letal concentration* (LC) yaitu kematian larva *Artemia salina* Leach sebanyak 50% atau disebut LC50. Biji buah bagore diekstraksi dengan cara maserasi dengan menggunakan pelarut etanol 70% kemudian di partisi dengan metode partisi cair – cair sehingga menghasilkan fraksi etil asetat dan fraksi n-heksan kemudian dilakukan Skrining fitokimia sehingga menunjukkan kandungan kimia dalam biji buah bagore yaitu Alkaloid, Flavonoid dan saponin untuk ekstrak biji buah bagore. lalu dilakukan uji toksisitas menggunakan variasi konsentrasi untuk ekstrak yaitu 60 ppm, 80 ppm, 100 ppm dan 120 ppm. Sedangkan untuk fraksi n-heksan menggunakan seri konsentrasi yaitu 10ppm, 20 ppm, 40 ppm, 60 ppm dan 120 ppm. Sedangkan untuk fraksi etil asetat menggunakan variasi konsentrasi yaitu 10ppm, 30 ppm, 60 ppm, 80 ppm dan 120 ppm. Ekstrak dan Fraksi masing-masing dimasukkan kedalam vial dan diberikan 10 ekor larva masing masing kedalam vial yang dicukupkan dengan air laut hingga 10 ml. selanjutnya dibiarkan selama 24 jam kemudian dihitung berapa banyak kematian larva dalam setiap konsentrasi. Hasil penelitian menunjukkan bahwa ekstrak biji buah bagore mempunyai LC50 64,120 ppm, fraksi n-heksan 19,364 ppm dan fraksi etil asetat 23,334 ppm. Nilai tersebut menunjukkan bahwa biji buah bagore bersifat sangat toksik.

Kata Kunci : Skrining Fitokimia, Toksisitas, Ekstrak dan Fraksi biji buah bagore, BSLT.

ABSTRACT

RAFIAH ARSYAD. *Phytochemical Screening and Cytotoxic Assay of Fever Nut Seed Fraction (Caesalpinia crista L.) Using Brine Shrimp Lethality Test (BSLT) Method* (Supervised by Asni Amin and Risda Waris)

A study was conducted to determine the toxic potential of the fever nut seeds (*Caesalpinia crista* L.) utilizing the BSL method. The chemical content of the seeds was examined, as well as the value, or lethal concentration, of the seeds (LC_{50}). The results of the study were tested on the larvae of the species, which had a lethal concentration of up to 50% (LC_{50}). Initially, the seeds of the species had been macerated using 70% ethanol. The liquid partitions method was then employed to divide the ethyl acetate fraction and n-hexane fraction. This study further investigated the phytochemical composition of fever nut seeds, including Alkaloid, Flavonoid and saponin. Additionally, a toxicity test was conducted using concentration variations for extracts, which were divided into 60ppm, 80ppm, 100ppm and 120 ppm, while the n-hexane fraction used concentration series, which were further divided into 10 ppm, 20 ppm, 40 ppm, 60 ppm and 120 ppm. Ethyl acetate was also used in the study, with a concentration variation of 10 ppm, 30 ppm, 60 ppsm, 80 ppsm and 120 pps. Each extract and fraction were then placed into a vial containing 10 larvae, which were supplemented with 10 ml of seawater. The larvae were then left for 24 hours, and the number of dead larvae was calculated. The results indicated that fever nut seed extract showed LC_{50} of 64,120 ppm, n-hexane fraction of 19,364 ppm, and ethyl acetate fraction of 23,334 ppm. Therefore, the value concludes that the seeds of fever nut contain high toxicity.

Keywords: *Phytochemical Screening, Toxicity, Extract and Fraction of Fever Nut Seeds, BSLT*