

LITERATURE REVIEW OF THE POTENTIALITY OF PROCESSING NONI (*Morinda citrifolia*) LEAVES WITH VARIOUS METHODS AS AN ANTIBACTERIAL AGENT

ABSTRACT

Noni leaf processing with various methods to produce active chemical compounds and different levels of effectiveness. Some kind of processing of noni leaves in the form of pure juice, extraction, flouring, blending, juicing, and decocta produce antibacterial compounds against bacteria that cause digestive tract diseases. The purpose of review this literature is to determine the ability of the antibacterial power of various methods of processing noni leaves in inhibiting the bacteria that cause digestive tract diseases and to find out more use values when a health product is made. This type of research uses library research by collecting library data obtained from various sources of library information related to research objects such as through Scientific Papers, indexes, reviews, journals and reference books to determine the inclusion and exclusion criteria to be used.

The results showed that processing of noni leaves using various methods was proven to be able to inhibit the pathogenic bacteria that cause digestive problems (*Escherichia coli*, *Salmonella typhimurium*, *Shigella dysenteriae*, and *Vibrio cholera*), the highest concentration was the most effective in inhibiting bacterial growth. Noni leaf contains alkaloids, coumarin, flavonoid (quercetin), tannin, anthraquinone (iridoid, glycoside, flavonol, triterpenes, acubin, and alizirin), saponins, steroids, triterpenoids, polyphenols (phenolic acid / phenolic acid), ferric and acidic acids. p-hydroxycinnamic acid (methyl 4-hydroxybenzoate, as well as methyl ferulate and methyl 4-hydroxycinnamate, p-Hydroxybenzoate) as antibacterial agents.

Keywords: Noni leaf, chemical content, antibacterial, literature review

LITERATUR REVIEW STUDI POTENSI PENGOLAHAN DAUN MENGKUDU (*Morinda citrifolia*) DENGAN BERBAGAI METODE PENGOLAHAN SEBAGAI ZAT ANTIBAKTERIAL

INTISARI

Pengolahan daun mengkudu dengan berbagai metode menghasilkan senyawa kimia aktif dan tingkat keefektifan yang berbeda-beda. Beberapa macam pengolahan daun mengkudu dalam bentuk air perasan murni, ekstraksi, penepungan, *blending*, *juicing*, dan dekokta menghasilkan senyawa antibakteri terhadap bakteri penyebab penyakit saluran pencernaan. Tujuan dari *review* literatur ini adalah untuk mengetahui kemampuan daya antibakterial dari berbagai macam metode pengolahan daun mengkudu dalam menghambat bakteri penyebab penyakit saluran pencernaan dan untuk mengetahui adakah nilai guna lebih apabila dibuat sebuah produk kesehatan. Jenis penelitian menggunakan *library research* dengan mengumpulkan data pustaka yang diperoleh dari berbagai sumber informasi kepustakaan yang berkaitan dengan obyek penelitian seperti melalui Karya Tulis Ilmiah, indeks, *review*, jurnal dan buku referensi untuk menentukan kriteria inklusi dan eksklusi yang akan digunakan.

Didapatkan hasil bahwa hasil pengolahan daun mengkudu menggunakan berbagai macam metode terbukti mampu menghambat bakteri patogen penyebab masalah pencernaan (*Escherichia coli*, *Salmonella typhimurium*, *Shigella dysenteriae*, dan *Vibrio cholera*), konsentrasi tertinggi merupakan paling efektif dalam menghambat pertumbuhan bakteri. Daun mengkudu mengandung senyawa kimia seperti alkaloid, kumarin, flavonoid (quercetin), tanin, antrakuinon (iridoid, glikosida, flavonol, triterpen, acubin, dan alizirin), saponin, steroid, triterpenoid, polifenol (asam fenolat/ fenolic acid), asam ferulic dan asam p-hydroxycinamic (metil 4-hydroxybenzoate, serta methyl ferulate dan methyl 4- hydroxycinnamate, p-Hydroxybenzoate) sebagai zat antibakterial.

Kata kunci: daun mengkudu, kandungan kimia, antibakterial, review literatur