

**FAKULTAS KEDOKTERAN
UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA**

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**EFEKTIVITAS EKSTRAK DAUN NANGKA (*Artocarpus heterophyllus*)
TERHADAP PERTUMBUHAN *Trichophyton rubrum* Secara *In Vitro***

RINCIAN HALAMAN (xvi + 91 halaman, 11 tabel, 13 gambar, 7 lampiran)

ABSTRAK

Tujuan

Trichophyton rubrum adalah suatu jenis dermatofita yang merupakan salah satu penyebab utama dermatofitosis. Penatalaksanaan dermatofitosis dengan obat antijamur sintesis dapat menyebabkan resistensi dan berbagai efek samping. Beberapa senyawa bioaktif dengan potensi antijamur terkandung dalam daun nangka (*Artocarpus heterophyllus*). Untuk mendapatkan senyawa bioaktif tersebut pada penelitian ini dilakukan *Ultrasound-Assisted Extraction* (UAE) yang merupakan metode ekstraksi modern yang efisien. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekstrak daun nangka dalam menghambat pertumbuhan *T. rubrum*.

Metode

Penelitian ini merupakan penelitian eksperimental murni dengan *post-test only control group design* menggunakan variabel bebas konsentrasi ekstrak daun nangka 50%, 60%, 70%, 80%, dan 90%; kontrol positif ketokonazol 2%; kontrol negatif akuades; dan variabel terikat berupa zona hambat pertumbuhan jamur. Penelitian ini menggunakan metode difusi sumuran dan pengamatan dilakukan pada 24 jam dan 48 jam. Data yang diperoleh kemudian dianalisis menggunakan uji statistik non parametrik Kruskal-Wallis yang dilanjutkan dengan uji Post-Hoc Mann-Whitney.

Hasil

Ekstrak daun nangka hasil metode UAE terbukti menghambat pertumbuhan *T. rubrum* melalui senyawa bioaktif dengan sifat antijamur yang bekerja secara fungistatik. Secara statistik konsentrasi ekstrak 80% menjadi yang paling efektif dalam menghambat pertumbuhan *T. rubrum* karena konsentrasi 90% tidak memberikan peningkatan efektivitas antijamur yang signifikan.

Kesimpulan

Berdasarkan hasil penelitian, didapatkan bahwa ekstrak daun nangka pada konsentrasi tertentu dapat menghambat pertumbuhan *T. rubrum* dengan konsentrasi ekstrak 80% menjadi konsentrasi paling efektif secara statistik.

Daftar Pustaka : 60 (2014-2025)

Kata Kunci : Antijamur, Daun nangka, *Trichophyton rubrum*,
Zona hambat, *Ultrasound-Assisted Extraction* (UAE)

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Undergraduate Thesis, January 2026
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THE EFFECT OF JACKFRUIT LEAF EXTRACT (*Artocarpus heterophyllus*) ON THE GROWTH OF *Trichophyton rubrum* IN VITRO

PAGE DETAIL (xvi + 91 pages, 11 tables, 13 pictures, 7 appendices)

ABSTRACT

Objective

Trichophyton rubrum is a dermatophyte fungus that is one of the main causes of dermatophytosis. The use of synthetic antifungal drugs to treat dermatophytosis can lead to resistance and may cause various adverse effects. Jackfruit leaves contain various bioactive compounds such as flavonoids, alkaloids, saponins, and tannins that have been proven to have antifungal properties. To acquire the bioactive compounds, *Ultrasound-Assisted Extraction* was performed due to its efficiency in extracting such compounds. The aim of this study is to determine the effect of jackfruit leaf extract on inhibiting the growth of *T. rubrum*.

Method

Jackfruit leaf extract concentrations of 50%, 60%, 70%, 80%, and 90% were the independent variables in this pure experimental study with a post-test only control group design. The dependent variable was the fungal growth inhibition zone. The positive control was ketoconazole 2%. The well diffusion method was employed in this study and observations were made at 24 and 48 hours.

Result

The results indicate that jackfruit leaf extract produces an inhibitory zone against *T. rubrum* due to the bioactive compounds that act as a fungistatic agent that increases with higher extract concentration. Statistically, extract concentration of 80% is the most effective in inhibiting *T. rubrum* growth with concentration of 90% showing no significant increase in antifungal efficacy.

Conclusion

Based on the results of the study, it was found that jackfruit leaf extract at a certain concentration can inhibit the growth of *T. rubrum*, with an extract concentration of 80% being the most effective concentration.

Reference : 60 (2014-2025)

Keywords : Antifungal, Jackfruit leaves, *Trichophyton rubrum*,
Inhibition zone, *Ultrasound-Assisted Extraction* (UAE)