

ABSTRAK

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UJI AKTIVITAS ANTIJAMUR EKSTRAK DAUN SIRIH HIJAU (*Piper betle* L.) DAN DAUN SIRIH MERAH (*Piper crocatum*) TERHADAP PERTUMBUHAN *Malassezia furfur*

1x + 120 Halaman + 9 Tabel + 20 Lampiran

Pityriasis versicolor merupakan infeksi jamur superfisial yang disebabkan oleh *Malassezia furfur* dan dikenal masyarakat sebagai panu. Penggunaan antijamur sintetis jangka panjang berpotensi menimbulkan resistensi sehingga mendorong eksplorasi bahan alam alternatif seperti daun sirih hijau (*Piper betle* L.) dan daun sirih merah (*Piper crocatum*) yang diketahui mengandung flavonoid, alkaloid, tanin, fenol, triterpenoid, dan saponin yang berpotensi sebagai antijamur. Penelitian ini dilaksanakan pada bulan Oktober 2025 - April 2026, dengan proses ekstraksi dan uji fitokimia dilakukan di UPT Laboratorium Herbal Materia Medika Batu, serta uji aktivitas antijamur dilakukan di Laboratorium Mikologi Kampus Politeknik Kesehatan Kementerian Kesehatan Surabaya. Penelitian ini bertujuan membandingkan efektivitas kedua ekstrak tersebut terhadap pertumbuhan *Malassezia furfur* secara in vitro menggunakan metode difusi sumuran pada media *Sabouraud Dextrose Agar* dengan variasi konsentrasi 20%, 40%, 60%, 80%, dan 100%, tiga kali pengulangan, kontrol positif ketokonazol 2%, dan kontrol negatif DMSO 10%. Hasil penelitian menunjukkan bahwa ekstrak daun sirih hijau menghasilkan rata-rata zona hambat berturut-turut 11,33 mm, 13,67 mm, 15,33 mm, 18,00 mm, dan 19,33 mm, sedangkan ekstrak daun sirih merah menghasilkan 13,00 mm, 15,33 mm, 18,33 mm, 20,33 mm, dan 21,00 mm. Berdasarkan hasil tersebut, disimpulkan bahwa ekstrak daun sirih merah lebih efektif dibandingkan sirih hijau dalam menghambat pertumbuhan *Malassezia furfur* pada seluruh konsentrasi yang diuji, dengan konsentrasi optimum pada 80%.

Kata kunci: Antijamur, *Malassezia furfur*, *Piper betle* L., *Piper crocatum*, Zona hambat

Daftar bacaan: 12 buku (2019–2025), 56 jurnal (2015–2025),

ABSTRACT

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ANTIFUNGAL ACTIVITY TEST OF GREEN BETEL LEAF (Piper betle L.) AND RED BETEL LEAF (Piper crocatum) EXTRACT AGAINST THE GROWTH OF Malassezia furfur

1x + 120 Page + 9 Tables + 20 Appendix

Pityriasis versicolor is a superficial fungal infection caused by Malassezia furfur, commonly known in the community as tinea versicolor. Long-term use of synthetic antifungals has the potential to cause resistance, prompting the exploration of natural alternatives such as green betel leaf (Piper betle L.) and red betel leaf (Piper crocatum), which are known to contain flavonoids, alkaloids, tannins, phenols, triterpenoids, and saponins with potential antifungal activity. This study was conducted from October 2025 to April 2026, with the extraction and phytochemical screening processes carried out at the UPT Herbal Laboratory of Materia Medika Batu, and the antifungal activity testing performed at the Mycology Laboratory of the Health Polytechnic of the Ministry of Health Surabaya. This study aimed to compare the effectiveness of both extracts against the growth of Malassezia furfur in vitro using the well diffusion method on Sabouraud Dextrose Agar medium with concentrations of 20%, 40%, 60%, 80%, and 100% in triplicate, with ketoconazole 2% as positive control and DMSO 10% as negative control. Results showed that green betel leaf extract produced mean inhibition zones of 11.33 mm, 13.67 mm, 15.33 mm, 18.00 mm, and 19.33 mm, while red betel leaf extract produced 13.00 mm, 15.33 mm, 18.33 mm, 20.33 mm, and 21.00 mm, respectively. Based on these results, it was concluded that red betel leaf extract was more effective than green betel leaf in inhibiting the growth of Malassezia furfur at all tested concentrations, with the optimum concentration at 80%.

Keywords: Antifungal, Malassezia furfur, Piper betle L., Piper crocatum, Inhibition zone

Reference : 12 books (2019–2025), 56 journal articles (2015–2025)