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**Pengaruh Lama Fermentasi Kombucha Teh Bunga Telang (*Clitoria ternatea*)
Terhadap Daya Hambat Pertumbuhan Jamur *Candida albicans***

xv + 38 halaman, 6 tabel, 5 gambar dan 10 lampiran

ABSTRAK

Kandidiasis yang disebabkan oleh *Candida albicans* merupakan infeksi jamur yang umum ditemukan di Indonesia dan menjadi masalah kesehatan karena resistensi terhadap obat antijamur kimia. Salah satu alternatif alami yang berpotensi adalah kombucha teh bunga telang (*Clitoria ternatea*) yang mengandung senyawa bioaktif seperti flavonoid, saponin, terpenoid, tanin, alkaloid, dan fenolik. Penelitian ini bertujuan untuk mengetahui pengaruh lama fermentasi kombucha teh bunga telang terhadap daya hambat pertumbuhan jamur *Candida albicans*. Jenis penelitian adalah eksperimental laboratorium rancangan acak lengkap menggunakan tiga variasi lama fermentasi yaitu 7, 14, dan 21 hari. Uji aktivitas antijamur dilakukan dengan metode difusi sumuran, diameter zona hambat diukur menggunakan jangka sorong. Hasil penelitian menunjukkan bahwa rata-rata diameter zona hambat meningkat seiring bertambahnya lama fermentasi, yaitu 12.2 mm (hari ke-7), 17.0 mm (hari ke-14), dan 20.9 mm (hari ke-21). Data terdistribusi normal dan homogen, serta uji ANOVA menunjukkan pengaruh yang signifikan ($p = 0,000$). Uji *post hoc* menunjukkan bahwa semua perlakuan berbeda nyata. Fermentasi 7 dan 14 hari termasuk kategori kuat (12,2 mm dan 17,0 mm), sedangkan fermentasi 21 hari tergolong sangat kuat (20,9 mm). Lama fermentasi kombucha teh bunga telang selama 21 hari menghasilkan diameter terbesar. Semakin lama waktu fermentasi semakin besar diameter zona hambat yang dihasilkan.

Kata kunci : *Clitoria ternatea*, fermentasi, kombucha, *Candida albicans*,
zona hambat, antijamur

Daftar Bacaan : 34 (2008-2024)

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The Effect of Fermentation Duration of Butterfly Pea (Clitoria ternatea) Kombucha Tea on the Inhibitory Activity Against Candida albicans Growth

xv + 38 pages, 6 tables, 5 figures, and 10 appendices

ABSTRACT

Candidiasis caused by Candida albicans is a common fungal infection in Indonesia and has become a health problem due to its resistance to chemical antifungal drugs. One potential natural alternative is butterfly pea flower tea kombucha (Clitoria ternatea) which contains bioactive compounds such as flavonoids, saponins, terpenoids, tannins, alkaloids, and phenolics. This study aims to determine the effect of butterfly pea flower tea kombucha fermentation time on the growth inhibition of Candida albicans. The type of study was a laboratory experiment with a completely randomized design using three variations of fermentation time: 7, 14, and 21 days. The antifungal activity test was carried out using the well diffusion method, the diameter of the inhibition zone was measured using a vernier caliper. The results showed that the average diameter of the inhibition zone increased with increasing fermentation time, namely 12.2 mm (day 7), 17.0 mm (day 14), and 20.9 mm (day 21). The data were normally distributed and homogeneous, and the ANOVA test showed a significant effect ($p = 0.000$). Post hoc testing showed that all treatments were significantly different. Fermentation for 7 and 14 days was categorized as strong (12.2 mm and 17.0 mm), while fermentation for 21 days was categorized as very strong (20.9 mm). The 21-day fermentation period of butterfly pea flower tea kombucha produced the largest diameter. The longer the fermentation period, the larger the diameter of the resulting inhibition zone.

Keywords : *Clitoria ternatea, fermentation, kombucha, Candida albicans, inhibition zone, antifungal*

References : 34 (2008-2024)