

**POLTEKKES KEMENKES TANJUNGPINANG
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Nela Masrurotul Rohma

**Uji Efektifitas Daun Kenikir (*Cosmos caudatus kunth*) Dalam Menghambat
Pertumbuhan Jamur *Aspergillus flavus***

Xvi + 36 halaman, 4 tabel, 7 gambar dan 18 lampiran

ABSTRAK

Aspergillus flavus merupakan jamur multiseluler yang menghasilkan mikotoksin dan menjadi penyebab penyakit aspergillosis, mikotoksin yang dihasilkan *Aspergillus flavus* dikenal dengan aflatoksin. Senyawa aflatoksin dapat mencemari bahan pangan selama pra dan pasca panen. Bahan pangan yang tercemar oleh aflatoksin dapat menyebabkan keracunan pada manusia dan hewan. Obat antijamur untuk mengobati infeksi *Aspergillus flavus* salah satunya ketokonazol namun sudah ditemukan resistensi terhadap penggunaannya. Alternatif pengobatan antijamur dapat menggunakan daun kenikir. Daun kenikir (*Cosmos caudatus kunth*) mengandung senyawa flavonoid, tanin, saponin, steroid, alkaloid yang berfungsi sebagai antijamur. Tujuan penelitian untuk mengetahui efektivitas daun kenikir (*Cosmos caudatus kunth*) dalam menghambat pertumbuhan jamur *Aspergillus flavus*. Bahan uji penelitian adalah ekstrak daun kenikir hasil maserasi dengan pelarut etanol 96%. Metode uji daya hambat menggunakan metode difusi cakram Kirby bauer dengan 4 kali pengulangan. Diinokulasikan dengan metode spread plate menggunakan cotton swab steril pada media SDA (*Saboraud dextrose agar*). Hasil uji efektifitas daun kenikir terhadap pertumbuhan jamur *Aspergillus flavus* dengan konsentrasi 55%, 70%, 85% dan 100% menunjukkan bahwa ekstrak daun kenikir (*Cosmos caudatus kunth*) tidak memiliki kemampuan menghambat pertumbuhan jamur *Aspergillus flavus* 0 mm. Kontrol positif ketokonazol terhadap pertumbuhan jamur *Aspergillus flavus* memiliki rerata zona hambat 24,5 mm. Kontrol negatif aquades steril 0 mm. Disimpulkan bahwa ekstrak daun kenikir (*Cosmos caudatus kunth*) tidak memiliki perbedaan rerata zona hambat pada masing-masing konsentrasi dan kategori uji daya hambat daun kenikir (*Cosmos caudatus kunth*) terhadap pertumbuhan jamur *Aspergillus flavus* dengan kategori lemah.

Kata Kunci : *Aspergillus flavus*, Daun kenikir (*Cosmos caudatus kunth*), Zona hambat

Daftar Bacaan : 66 (2008-2023)

POLTEKKES KEMENKES TANJUNGPUR
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Nela Masrurotul Rohma

**Effectiveness Test of Kenikir Leaves (*Cosmos caudatus kunth*) in Inhibiting
the Growth of *Aspergillus flavus* Fungus**

Xvi + 36 Page, 4 table, 7 Picture and 18 attachment

ABSTRACT

Aspergillus flavus is a multicellular fungus that produces mycotoxins and causes aspergillosis, mycotoxins produced by *Aspergillus flavus* are known as aflatoxins. Aflatoxin compounds can contaminate food during pre- and post-harvest. Food contaminated by aflatoxins can cause poisoning in humans and animals. One of the antifungal drugs to treat *Aspergillus flavus* infections is ketoconazole, but resistance has been found in its users. An alternative antifungal treatment can use kenikir leaves. Kenikir leaves (*Cosmos caudatus kunth*) contain flavonoids, tannins, saponins, steroids, alkaloids that function as antifungals. The purpose of the study was to determine the effectiveness of kenikir leaves (*Cosmos caudatus kunth*) in inhibiting the growth of *Aspergillus flavus* fungi. The test material for the study was kenikir leaf extract from maceration with 96% ethanol solvent. The inhibition test method used the *Kirby Bauer* disc diffusion method with 4 repetitions. Inoculated with the spread plate method using sterile cotton swabs on SDA (*Saboraud dextrose agar*) media. The results of the effectiveness test of kenikir leaves on the growth of *Aspergillus flavus* fungus with concentrations of 55%, 70%, 85% and 100% showed that kenikir leaf extract (*Cosmos caudatus kunth*) did not have the ability to inhibit the growth of *Aspergillus flavus* fungus 0 mm. The positive control of ketoconazole on the growth of *Aspergillus flavus* fungus had an average inhibition zone of 24.5 mm. The negative control was sterile aquadest 0 mm. It was concluded that kenikir leaf extract (*Cosmos caudatus kunth*) did not have a difference in the average inhibition zone at each concentration and category of kenikir leaf inhibition test (*Cosmos caudatus kunth*) on the growth of *Aspergillus flavus* fungus with a weak category.

Keywords : *Aspergillus flavus*, Kenikir leaves (*Cosmos caudatus kunth*),
Inhibition zone

Reading List : 66 (2008-2023)