

# Kemampuan antagonisme Khamir Filum Basidiomycota dari tanaman saeh (*Broussonetia papyrifera* Vent.) asal Bandung terhadap *Aspergillus* spp. UICC = Antagonism activity of phylum Basidiomycota yeasts from Saeh plant (*Broussonetia papyrifera* Vent.) from Bandung against *Aspergillus* spp. UICC

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## Abstrak

Penelitian dilakukan untuk mengetahui kemampuan antagonisme enam spesies khamir filum Basidiomycota dari tanaman saeh (*Broussonetia papyrifera* Vent.) asal Bandung terhadap kapang *Aspergillus* spp. UICC. Pengujian menggunakan metode co-culture dalam medium Potato Dextrose Broth pH 5 pada suhu 30° C selama empat hari inkubasi. Khamir *Cryptococcus luteolus* UICC Y-461, *Cryptococcus rajasthanensis* UICC Y-458, *Cryptococcus zeae* UICC Y-463, *Rhodotorula dairenensis* UICC Y-457, *Rhodotorula glutinis* UICC Y-454, dan *Rhodotorula mucilaginosa* UICC Y-466 memiliki kemampuan antagonisme terhadap kapang *Aspergillus* spp. UICC. *Cryptococcus luteolus* UICC Y-461 merupakan khamir antagonis paling potensial karena mengalami peningkatan panjang sel rata-rata dan lebar sel rata-rata tertinggi ketika ditumbuhkan bersama *Aspergillus niger* UICC yaitu sebesar 9,88% dan 14,17%, mengalami peningkatan panjang sel rata-rata tertinggi ketika ditumbuhkan bersama *Aspergillus ochraceus* UICC yaitu sebesar 18,43%, memiliki kemampuan tertinggi dalam menghambat pertumbuhan kapang *Aspergillus* spp. UICC yaitu sebesar 100% (menyebabkan mortalitas kapang sebesar 100%), dan mengalami peningkatan jumlah sel tertinggi ketika ditumbuhkan bersama *Aspergillus terreus* UICC yaitu sebesar 41,62% pada inkubasi hari ke-4.

.....The antagonism activity of six species of Basidiomycota yeasts from saeh plant (*Broussonetia papyrifera* Vent.) from Bandung against *Aspergillus* spp. UICC were investigated. The antagonism test was carried out by using co-culture method in Potato Dextrose Broth of pH 5 for four days at 30° C. Result showed that *Cryptococcus luteolus* UICC Y-461, *Cryptococcus rajasthanensis* UICC Y-458, *Cryptococcus zeae* UICC Y-463, *Rhodotorula dairenensis* UICC Y-457, *Rhodotorula glutinis* UICC Y-454, and *Rhodotorula mucilaginosa* UICC Y-466 were antagonists. *Cryptococcus luteolus* UICC Y-461 is the most potential antagonistic yeast because of the highest increase in average cell length and average cell width when grown with *Aspergillus niger* UICC by 9.88% and 14.17%, the highest increase in average cell length when grown with *Aspergillus ochraceus* UICC by 18.43%, the highest inhibition of growth of *Aspergillus* spp. UICC by 100% (caused 100% mortality of moulds), and increase the number of yeast cells when grown with *Aspergillus terreus* UICC by 41.62% at day-4.