

Kemampuan antagonisme khamir filum basidiomycota dari tanaman saeh (*Broussonetia papyrifera* Vent.) asal trowulan terhadap *Aspergillus* spp. UICC = Antagonism activity of basidiomycota yeasts from saeh plant (*Broussonetia papyrifera* Vent.) from trowulan against *Aspergillus* spp. UICC

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Abstrak

Telah dilakukan penelitian untuk mengetahui kemampuan antagonisme enam khamir epifit filum Basidiomycota koleksi UICC yang diisolasi dari daun tanaman Saeh (*Broussonetia papyrifera* Vent.) asal Trowulan terhadap kapang *Aspergillus* spp. UICC. Keenam khamir tersebut, yaitu *Cryptococcus flavescens* UICC Y-515, *Cryptococcus flavescens* UICC Y-525, *Cryptococcus flavus* UICC Y-534, *Rhodotorula glutinis* UICC Y-520, *Rhodotorula mucilaginosa* UICC Y-522, dan *Rhodotorula mucilaginosa* UICC Y-531. Pengujian dilakukan menggunakan metode co-culture pada medium PDB pH 5, selama empat hari inkubasi pada suhu 28°C. Keenam spesies khamir memiliki kemampuan antagonisme yang ditunjukkan melalui peningkatan jumlah sel khamir sebesar 26,91--98,76%, peningkatan ukuran sel vegetatif khamir (panjang sel rata-rata meningkat sebesar 1,11--19,59% dan lebar sel rata-rata sebesar 0,82--19,42%), penghambatan waktu sporulasi hingga inkubasi hari ke-3, reduksi lebar hifa kapang sebesar 7,84--20,26%, dan mortalitas kapang sebesar 100% pada inkubasi hari ke-4.

.....A study has been conducted to determine the antagonism activity of six epiphytic yeast species from phylum Basidiomycota against *Aspergillus* spp. UICC. The yeasts were isolated from Saeh plants (*Broussonetia papyrifera* Vent.) from Trowulan. The yeasts were *Cryptococcus flavescens* UICC Y-515, *Cryptococcus flavescens* UICC Y-525, *Cryptococcus flavus* UICC Y-534, *Rhodotorula glutinis* UICC Y-520, *Rhodotorula mucilaginosa* UICC Y-522, and *Rhodotorula mucilaginosa* UICC Y-531. Antagonism test was carried out by co-culture in PDB pH 5 for four days at 28°C. Results showed that all yeast species were antagonists and indicated by an increase in the number of yeast cells by 26.91--98.76%, an increase in the size of vegetative yeast cells (average cell length by 1.11--19.59% and an increase of the average cell width by 0.82--19.42%), inhibition of sporulation by day 3 incubation, reduced width of the hyphal mold by 7.84--120.26%, and mortality of molds by 100% at day 4 incubation.