

Kemampuan antagonisme khamir Filum Ascomycota dari tanaman saeh (Broussonetia papyrifera Vent.) asal Trowulan terhadap Aspergillus spp. UICC = The antagonism activity of Ascomycota yeasts from saeh plant (Broussonetia papyrifera Vent.) from Trowulan against Aspergillus spp. UICC

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Abstrak

Penelitian bertujuan mengetahui kemampuan antagonisme khamir filum Ascomycota dari tanaman saeh (Broussonetia papyrifera Vent.) terhadap kapang patogen tomat (*Lycopersicon esculentum* Mill.) dengan metode co-culture. Khamir *Aureobasidium pullulans* UICC Y-527, *Aureobasidium* sp. UICC Y-516, *Aureobasidium* sp. UICC Y-528, *Candida orthopsilosis* UICC Y-533, *Meyerozyma caribbica* UICC Y-518, dan *Mey. caribbica* UICC Y-529 ditumbuhkan dengan kapang *Aspergillus* spp. UICC di medium Potato Dextrose Broth (PDB) selama empat hari pada suhu 28° C.

Khamir menunjukkan kemampuan antagonisme terhadap kapang *A. niger* UICC, *A. ochraceus* UICC, dan *A. terreus* UICC yang ditunjukkan dengan ketiadaan pertumbuhan hifa atau miselium dan sporulasi pada permukaan medium, mortalitas kapang sebesar 100%, reduksi ukuran hifa kapang sebesar 3%--85%, peningkatan jumlah sel khamir sebesar 1,81%--50,09%, peningkatan panjang sel khamir sebesar 2%--17% dan lebar sel khamir sebesar 1%--24%.

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The research aim was to investigate the antagonism activity of Ascomycota yeasts from saeh plant (*Broussonetia papyrifera* Vent.) from Trowulan against moulds pathogen in tomato (*Lycopersicon esculentum* Mill.) with co-culture method. *Aureobasidium pullulans* UICC Y-527, *Aureobasidium* sp. UICC Y-516, *Aureobasidium* sp. UICC Y-528, *Candida orthopsilosis* UICC Y-533, *Meyerozyma caribbica* UICC Y-518, and *Mey. caribbica* UICC Y-529 were incubated with *Aspergillus* spp. UICC in Potato Dextrose Broth (PDB) medium for four days in 28° C.

The results showed that the yeasts have antagonism activity against *A. niger* UICC, *A. ochraceus* UICC, and *A. terreus* UICC shown by mycelial growth inhibition and sporulation, 100% mortality, hyphal size reduction 3%--85%, increased number of the yeast cell 1.81%--50.09%, and increased yeast cell length 2%--17% and increased yeast cell width 1%--24%.