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%.