

Pengaruh penambahan tepung jangkrik pada medium pertumbuhan terhadap kemampuan *Metarhizium majus* UICC 295 menginfeksi larva *Oryctes rhinoceros* Linnaeus = The effect of cricket powder in growth medium on the pathogenicity of *Metarhizium majus* UICC 295 to infect *Oryctes rhinoceros* Linnaeus larvae

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Abstrak

Metarhizium majus UICC 295 adalah kapang entomopatogen. Penelitian bertujuan mengetahui pengaruh penambahan tepung jangkrik 10% (b/v) pada medium pertumbuhan *M. majus* UICC 295 terhadap kemampuan menginfeksi larva *O. rhinoceros* serta mengetahui pengaruh preservasi pada suhu -80o C menggunakan protektan gliserol 10% (v/v) dan gliserol 10% (v/v) dengan trehalosa 5% (b/v) terhadap viabilitas *M. majus* UICC 295. Konidia/hifa dari Saboraud Dextrose with Yeast Extract Agar (SDYA) dengan penambahan tepung jangkrik 10% (b/v) mampu membunuh larva 6,6--100% dalam 8--11 hari. Konidia/hifa yang dipreservasi selama 30 hari pada suhu -80o C menggunakan gliserol 10% (v/v) dan gliserol 10% (v/v) + trehalosa 5% (b/v) mengalami penurunan viabilitas. Konidia/hifa yang dipreservasi bersama kadaver larva selama 30 hari pada suhu -80o C menggunakan gliserol 10% (v/v) dan gliserol 10% (v/v) dengan trehalosa 5% (b/v) mampu dipertahankan viabilitasnya.

.....*Metarhizium majus* UICC 295 is an entomopathogenic fungus. This research aimed to investigate the effect of 10% (w/v) cricket powder in growth medium on the pathogenicity of *M. majus* UICC 295 to infect *O. rhinoceros* larvae and to investigate the effect of freezing in -80o C using 10% (v/v) glycerol and 10% (v/v) glycerol with 5% (w/v) trehalose on its viability. The conidia/hyphae from Saboraud Dextrose Agar with Yeast Extract (SDAY) with 10% (w/v) cricket powder was able to kill larvae 6.6%--100% in 8--11 days. Viability of conidia/hyphae after being preserved for 30 days in -80o C with 10% (v/v) glycerol and 10% (v/v) glycerol with 5% (w/v) trehalose was decreased. The conidia/hyphae on cadaver was still viable after being preserved at -80o C with 10% (v/v) glycerol and 10% (v/v) glycerol with 5% (w/v) trehalose.