

Pembuatan formula *Metarhizium majus* UICC 295 menggunakan media pembawa substrat jagung (*Zea mays*) dan pengujian formula terhadap Larva *Oryctes rhinoceros* = Formulation of *Metarhizium majus* UICC 295 using corn (*Zea mays*) as a carrier and its application on *Oryctes rhinoceros* larvae

Galuh Purnamasari, author

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Abstrak

ABSTRAK

Metarhizium majus UICC 295 adalah kapang entomopatogen. Penelitian bertujuan membuat dan menguji formula *M. majus* UICC 295 menggunakan media pembawa substrat jagung (*Zea mays*) terhadap larva *Oryctes rhinoceros* dengan metode kontak langsung, serta mengetahui pengaruh suhu dan waktu penyimpanan terhadap viabilitas konidia/hifa kapang pada formula. Pengujian suspensi konidia/hifa kapang sebanyak $(2,42 \pm 0,50) \times 10^6$ CFU/ml menyebabkan kematian larva 100% dalam 9--14 hari. Pembuatan formula dengan menginokulasikan biomassa kapang sebanyak 10% (berat/berat) ke dalam jagung. Pengujian formula dengan jumlah konidia/hifa $(1,77 \pm 0,73) \times 10^6$ CFU/g menyebabkan kematian larva 100% dalam 7--13 hari. Penyimpanan formula pada suhu 25--27° C dan 4° C selama 30 hari menyebabkan penurunan viabilitas konidia/hifa berturut-turut sebesar 93,95% dan 91,19%.

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Abstract

Metarhizium majus UICC 295 is an entomopathogenic fungus. This research investigated the use of corn as a carrier for formulation of *Metarhizium majus* UICC 295, application of the formula on *Oryctes rhinoceros* larvae, and the effect of temperature and time on the conidia/hyphal viability during storage. Application of conidia/hyphal suspension $(2.42 \pm 0.50) \times 10^6$ CFU/ml caused 100% larval mortality within 9--14 days. Formulation was carried out by inoculation of 10% (w/w) fungal biomass into corn. Application of the formula containing conidia/hyphae $(1.77 \pm 0.73) \times 10^6$ CFU/g caused 100% larval mortality within 7--13 days. The conidia/hyphal viability in the formula was decreased 93.95% and 91.19%, after storage for 30 days at 25--27° C and 4° C, respectively.