

THE INFLUENCE OF SOME ALTERNATIVE MEDIA COMPOSITIONS AS GROWTH MEDIA

FUNGUS Metarhizium anisopliae

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ABSTRACT

M. anisopliae is one of the entomopathogenic fungi and antagonistic fungi available in the world and acts as a biological agent because it has the ability to control Plant Disturbing Organisms (OPT) ranging from the order *Coleoptera*, *Hemiptera*, *Orthoptera*, *Hymenoptera*, *Isoptera* and *Lepidoptera*. Currently, the use of entomopathogenic fungi has problems in providing ready-to-use isolates. The provision of these ready-to-use isolates depends on the propagation technique and also the medium used against the abundance of *M. anisopliae* fungi in each treatment. This study aims to determine and develop the fungus *M. anisopliae* as a biological agent with the best media according to the concentration composition. This research was carried out in June – December 2023 at the Jember State Polytechnic Plant Protection Laboratory using a factorial Complete Randomized Design (RAL) with 5 levels of treatment and 3 repeats on 3 different media so that 45 experimental units were obtained, namely Corn Rice Media (M1), Corn Rice Media + Fine Rice Bran (M2), Corn Rice + Coarse Rice Bran (M3) with a combination of 5grams / 100 ml concentration, 10grams/100 ml, 15grams/100 ml, 20grams/100 ml, 25grams/100ml. The results of the study after 14 days of incubation period showed the results that the highest average spore density was in the treatment of corn rice mixture media + coarse rice bran with a ratio of 1: 1 solution concentration of 25grams media / 100 ml aquadest. Media mixture of corn rice + coarse rice bran is the best treatment that contains complete nutrients from the adoption of proteins, fats and carbohydrates.

Keywords: entomopathogenic fungus, exploration, *M. anisopliae*