THE ISOLATION OF FUNGUS Aspergillus sp IN THE ORGANIC AGRICULTURAL CENTER OF RICE PLANT IN BONDOWOSO REGENCY

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ABSTRACT

This study was aimed to know the morphology of fungus Aspergillus sp. macroscopically. The number of colonies, growth speed, and spore density of Aspergillus sp. had been isolated from two different locations, and it functioned to obtain pure isolate of fungus Aspergillus sp. This research was conducted from September to November 2019. This study consisted of 2 factors and 3 replications. The first factor was 0-5 cm depth from the ground level (K1), 10-15 cm depth from the ground level (K2), and 20-25 cm depth from the ground level (K3). The second factor was namely Lombok Kulon Village (L1) and Sulek Village (L2) with a combination of K1L1, K2L1, K3L1, K1L2, K2L2 and K3L2. The obtained data were analyzed qualitatively and quantitatively. The results showed that in the first location, fungus Aspergillus sp. could be isolated at 20-25 cm depth from the ground level. Whereas in the second location, Aspergillus sp. could be isolated at 10-15 cm and 20-25 cm depth from the ground level, and it had morphological characteristics such as black colonies, hyphae insulated, round conidia, upright and unbranched conidiophores, and rounded vesicle. Then, the number of colonies, growth speed, and spore density value of Aspergillus sp. from the two locations showed insignificantly different results.

Keywords: Aspergillus sp., depth level, and soil sampling