

EFFECTIVENESS OF THE *Beauveria bassiana* AS BIO-CONTROL AGENTS OF GRASSHOPPEN (*Oxya chinensis*) ON RICE PLANTS

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ABSTRACT

Grasshopper pests (Oxya chinensis) are one of the main pests of rice which are often controlled excessively using synthetic insecticides. Therefore, environmentally friendly methods such as the use of biological agents in rice cultivation need to be implemented. This research aims to determine the effectiveness of Beauveria bassiana against grasshopper pests (Oxya chinensis) on rice plants. In this study, the biological agent Beauveria bassiana was compared with an Imidacloprid insecticide. This research consisted of spore density tests (Food and Horticultural Crop Pest Disease Observation Laboratory, Tanggul) and field tests (rice cultivation land in Dukuhmencek Village, Sukorambi District, Jember Regency) from June-September 2023. The spore density obtained was 2.7×10^7 . Each treatment was applied to a plot measuring 10 m x 10 m with a total of 50 sample plants in it. The parameters used were the population of grasshoppers, the intensity of pest attacks, and the weight of dry grain per clump. The data was then analyzed using the Mann-Whitney test with SPSS 22 software. The result of the study showed that population, attack intensity and crop yield of the Beauveria bassiana treatment compared to Imidacloprid were not significantly different.

Keywords: *Beauveria bassiana, Grasshopper, Imidacloprid, Rice*