

ABSTRAK

PENGARUH DOSIS *Beauveria bassiana*, *Metarhizium anisopliae*, DAN KARBOSULFAN TERHADAP MORTALITAS LARVA *Oryctes rhinoceros*

Oleh

PUPUT FITRIANA

Perkebunan kelapa sawit dewasa ini merupakan perkebunan utama di Indonesia, produksinya sering mengalami penurunan akibat serangan hama kumbang tanduk (*Oryctes rhinoceros*). Penelitian ini bertujuan untuk mengetahui pengaruh masing-masing dosis *Beauveria bassiana*, *Metarhizium anisopliae*, karbosulfan, serta campuran jamur *B. bassiana* dan *M. anisopliae* terhadap tingkat mortalitas larva *O. rhinoceros*. Penelitian ini dilaksanakan di Laboratorium Bioteknologi, Fakultas Pertanian, Universitas Lampung, dan pengujian lapangan dilaksanakan pada bulan Desember - Januari 2025 di lahan perkebunan kelapa sawit di Desa Negeri Agung, Kecamatan Selagai Lingga, Kabupaten Lampung Tengah. Metode penelitian menggunakan rancangan acak lengkap (RAL) dengan sembilan perlakuan dan empat ulangan. Variabel yang diamati yaitu bobot larva, warna larva, dan persentase mortalitas. Hasil penelitian menunjukkan bahwa perlakuan *M. anisopliae* 0,5 g, *B. bassiana* 0,5 g, dan campuran jamur *B. bassiana* 1 g/polibag dan *M. anisopliae* 1 g/polibag dapat dijadikan sebagai alternatif untuk mengendalikan larva *O. rhinoceros* yang lebih aman dan ramah lingkungan karena dapat menyebabkan mortalitas larva $\geq 50\%$.

Kata kunci: *B. bassiana*, karbosulfan, *M. anisopliae*, mortalitas, *O. rhinoceros*

ABSTRAK

THE EFFECT OF *Beauveria bassiana*, *Metarhizium anisopliae*, AND CARBOSULFAN DOSAGES ON THE MORTALITY OF *Oryctes rhinoceros* LARVAE

Oleh

PUPUT FITRIANA

Oil palm plantations are currently the primary type of plantation in Indonesia. However, production often declines due to infestations of rhinoceros beetles (*Oryctes rhinoceros*). This study aimed to determine the effects of various doses of *Beauveria bassiana*, *Metarhizium anisopliae*, carbosulfan, as well as a combination of *B. bassiana* and *M. anisopliae* fungi on the mortality rate of *O. rhinoceros* larvae. The research was conducted at the Biotechnology Laboratory, Faculty of Agriculture, University of Lampung, and the field trials were carried out from December to January 2025 in an oil palm plantation located in Negeri Agung Village, Selagai Lingga Subdistrict, Central Lampung Regency. The study employed a completely randomized design (CRD) with nine treatments and four replications. The observed variables included larval weight, larval coloration, and percentage of mortality. The results showed that treatments with *M. anisopliae* at 0.5 g, *B. bassiana* at 0.5 g, and a combination of *B. bassiana* 1 g/polibag and *M. anisopliae* 1 g/polibag can serve as effective, environmentally friendly alternatives for controlling *O. rhinoceros* larvae, as they caused larval mortality rates of $\geq 50\%$.

Keywords: *B. bassiana*, carbosulfan, *M. anisopliae*, mortality, *O. rhinoceros*