Uji Kualitas Dan Patogenisitas Jamur *Metarhizium anisopliae* Dan *Beauveria bassiana* Berbagai Konsentrasi Terhadap Hama Ulat Krop (*Crocidolomia pavonana*) Pada Kubis

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ABSTRAK

Tanaman kubis merupakan salah satu jenis sayuran dari genera *Brassica* yang tergolong ke dalam famili *Cruciferae.* Tanaman kubis ini berasal dari daerah subtropis dan telah lama dikenal dan dibudidayakan di Indonesia. Hama *Crocidolomia pavonana* sebelumnya dikenal dengan nama ilmiah *C. binotalis* Zeller, merupakan salah satu hama penting pada tanaman kubis. Salah satu alternatif dalam upaya mengurangi penggunaan pestisida adalah pengendalian hayati. Agensi hayati yang berpotensi dalam mengendalikan hama tanaman antara lain jamur entomopatogen; *Beauveria bassiana* dan *Metarhizium anisopliae.* Tujuan penelitian ini yaitu untuk mengetahui konsentrasi jamur *M. anisopliae* dan *B. bassiana* yang mampu menaikkan patogenisitas hama *C. pavonana* pada tanaman kubis. Penelitian ini dilaksanakan di Laboratorium Hayati Dinas Pertanian dan Ketahanan Pangan Daerah Istimewa Yogyakarta pada bulan Februari 2022 – Mei 2022. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) satu faktor yang terdiri atas 7 (tujuh) perlakuan yaitu : 10 g/L air konsentrasi jamur *M. anisopliae*, 20 g/L air konsentrasi jamur *M. anisopliae*, 30 g/L air konsentrasi jamur *M. anisopliae*, 10 g/L air konsentrasi jamur *B. bassiana*, 20 g/L air konsentrasi jamur *B. bassiana*, 30 g/L air konsentrasi jamur *B. bassiana* dan Kontrol. Masing-masing perlakuan diulang sebanyak 4 (empat) kali dan setiap satuan percobaan terdiri dari 15 larva instar ke 2. Hasil penelitian menunjukkan bahwa jamur *M.anisopliae* dan *B.bassiana* konsentrasi 10 g/L air sudah menghasilkan patogenesitas terhadap hama *C.pavonana* dibandingkan dengan kontrol.

Kata kunci : Patogenesitas, *M. anisopliae, B. bassiana, C. pavonana,* kubis.

Quality and Pathogenicity Tests of *Metarhizium anisopliae* and *Beauveria bassiana* Fungus in Various Concentrations of Crop Worm Pests (Crocidolomia pavonana) on Cabbage

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ABSTRACT

Cabbage is a type of vegetable from the Brassica genera belonging to the Cruciferae family. This cabbage plant comes from the subtropics and has long been known and cultivated in Indonesia. Crocidolomia pavonana, formerly known as C. binotalis Zeller, is one of the most important pests of cabbage. One alternative in an effort to reduce the use of pesticides is biological control. Potential biological agents in controlling plant pests include entomopathogenic fungi; Beauveria bassiana and Metarhizium anisopliae. The purpose of this study was to determine the concentration of M. anisopliae and B. bassiana fungi that were able to increase the pathogenicity of C. pavonana pests on cabbage plants. This research was conducted at the Biological Laboratory of the Department of Agriculture and Food Security of the Special Region of Yogyakarta in February 2022 – May 2022. This study used a one factor Completely Randomized Design (CRD) consisting of 7 (seven) treatments, namely: 10 g/L of water with mushroom concentration M. anisopliae, 20 g/L water concentration of M. anisopliae fungus, 30 g/L water concentration of M. anisopliae fungus, 10 g/L water concentration of B. bassiana fungus, 20 g/L water concentration of B. bassiana mushroom, 30 g /L water concentration of the fungus B. bassiana and Control. Each treatment was repeated 4 (four) times and each experimental unit consisted of 15 2nd instar larvae. The results showed that M. anisopliae and B. bassiana at a concentration of 10 g/L water produced pathogenicity against C. pavonana pests compared to with control.

Keywords: Pathogenicity, *M. anisopliae*, *B. bassiana*, *C. pavonana*, cabbage.