

Roni Ari Kurniawan 14.03.1.1.1.00096. Pengaruh Asal Isolat Pada Berbagai Media Tumbuh *Beauveria bassiana* terhadap Virulensi Wereng Cokelat (*Nilaparvata lugens* Stall) di Bawah Bimbingan **Dr.Ir. Gita Pawana, M.Si. dan Dr. Ir. Eko Murniyanto, M.P**

ABSTRAK

Beauveria bassiana adalah cendawan entomopatogen yang mampu menginfeksi hama wereng cokelat (*Nilaparvata lugens*). Kopi dan kakao adalah tanaman perkebunan yang biasanya tumbuh didataran tinggi dan membutuhkan tanaman penayang, sehingga *Beauveria bassiana* dapat tumbuh di rizosfir tanaman tersebut karena kondisinya lembab. Media PDA (*Potato Dextrose Agar*) sebagai media pertumbuhan *Beauveria bassiana* tergolong tidak efisien, karena harga media PDA tergolong tidak murah, sehingga diperlukan media alternatif yang mengandung nutrisi sesuai kebutuhan *Beauveria bassiana*. Penelitian ini bertujuan untuk mengetahui virulensi *Beauveria bassiana* dari rizosfir kopi dan kakao yang diperbanyak di berbagai jenis media terhadap mortalitas wereng cokelat (*Nilaparvata lugens*). Penelitian ini dilakukan dari bulan Januari -Maret 2018 di Balai Besar Proteksi dan Pembibitan Tanaman Perkebunan Surabaya (BBPPTP Surabaya). Rancangan penelitian menggunakan rancangan acak lengkap (RAL) dengan 7 perlakuan, asal isolat dari rizosfir kopi dan kakao yang ditumbuhkan pada media beras, jagung, dan campuran beras + jagung dan sebagai kontrol wereng cokelat tidak disemprot apapun. Parameter pengamatan adalah kerapatan spora, mortalitas *Nilaparvata lugens*, dan laju kematian, dan rerata mortalitas yang diamati selama 7 hari, data pengamatan di analisis dengan analisis sidik ragam (ANSIRA). Kemudian dilanjutkan dengan uji beda jarak nyata duncan (BJND) taraf 5%. Hasil penelitian menunjukkan bahwa isolat *Beauveria bassiana* dari rizosfir kakao lebih efektif dalam memvirulensi hama wereng cokelat dibanding asal isolat dari rizosfir kopi. Isolat dari rizosfir kakao yang efektif memvirulensi wereng cokelat adalah isolat yang ditumbuhkan di media beras dengan mortalitas 60%. Sedangkan isolat dari daerah perakaran kopi mampu memvirulensi wereng cokelat paling tinggi pada media beras, dengan mortalitas 55%.

Kata Kunci : Cendawan *Beauveria bassiana*, Wereng cokelat (*Nilaparvata lugens* Stall.), Asal isolat, Media tumbuh.

Roni Ari Kurniawan 14.03.1.1.1.00096. The Influence of The Origin of The Isolates on various Growth Medium *Beauveria bassiana* against The Virulence of Brown Planthopper (*Nilaparvata lugens* Stall) Supervised by **Dr.Ir. Gita Pawana, M.Si. dan Dr. Ir. Eko Murniyanto, M.P**

ABSTRACT

Beauveria bassiana is a entomopathogenic fungi that able to infect the rice pest (*Nilaparvata lugens*). Coffee and cocoa are plantation plan that grow in the highland spot and need a shelter plant in order to keep the ground beneath it moist. Consequently, *Beauveria bassiana* might grow on the rhizosphere of plant itself. Before being applied, *Beauveria Bassiana* should be isolated from the previous environment to PDA (Pottato Dextrose Agar). The PDA medium as place grow *Beauveria bassiana* would not be efficient for a long term utilizing because it is expensive. Consequently need to alternative medium have contents appropriate for *Beauveria bassiana*. The aim of this research is to discuss the virulence of *Beauveria bassiana* of coffee and cocoa and cacao rhizosphere and mediums toward mortality of *Nilapavarta Lugens*. This study has been done since January through March 2018 at Balai Besar Proteksi and Pembibitan Tanaman Perkebunan Surabaya (BBPPTP Surabaya). The plan of this research is using a completely randomized design by using 7 steps, the beginning of coffee and cocoa that has been sprouted on rice, corn and the mix of both rice and corn also as the regulator of rice pest. The observation parameter is the spore total, mortality, ride mortality, and mortality for seven day. Observation data at analysis with Analysis of Variance (ANSIRA), and then continued with Duncan Multiple Range Test (DMRT) Signification 5% whenever necessary. The result explained that *Beauveria bassiana* isolate with cacao rhizosphere is more effective than the isolate with coffee rhizosphere in virulence the rice pest. The isolate rhizosphere with cacao which effective to virulence the rice pest was isolate that sprouted on rice with 60% morality, while, the isolate with coffee was only able to virulence the rice pest with 55% morality.

Keywords : Fungi of *Beauveria bassiana*, Brown Plant Hopper (*Nilaparvata lugens* Stall.), Isolate beginning, Growth medium