

Intisari

Nilaparvata lugens merupakan salah satu hama penting bagi tanaman padi. Keberadaan *Nilaparvata lugens* pada tanaman padi dapat mempengaruhi produktivitas tanaman padi. Serangan dari *Nilaparvata lugens* dapat menyebabkan padi mengalami gagal panen. Pengaplikasian *Lecanicillium lecanii* pada padi efektif dalam mengendalikan hama wereng batang cokelat. Penggunaan *Lecanicillium lecanii* sebagai biopestisida yang ramah lingkungan dan tidak meninggalkan residu sehingga aman untuk digunakan. Penelitian dilaksanakan di Laboratorium Hama Tanaman Bagian Vertebrata Hama, Fakultas Pertanian, Universitas Gadjah Mada, Yogyakarta. Empat perlakuan A (Kontrol), B (Instar 1-2), C (Instar 3), dan D (Instar 4). Parameter yang diamati adalah presentase mortalitas dan Nilai LT_{50} jamur *Lecanicillium lecanii* terhadap nimfa *Nilaparvata lugens*. Hasil penelitian aplikasi *Lecanicillium lecanii* dapat menyebabkan mortalitas pada *Nilaparvata lugens* dengan $LT_{50} \pm 203$ jam (instar 4-5). *Lecanicillium lecanii* efektif dalam mengendalikan setiap fase perkembangan *Nilaparvata lugens* namun tidak terdapat perbedaan pada nimfa instar 1-2, 3, maupun 4-5.

Kata kunci : Wereng batang cokelat, padi, *Lecanicillium lecanii*

Yogyakarta,

Dosen Pembimbing Skripsi

Penyusun

Dr. Ir. Witjaksono, M.Sc.

Atina Pramesti

Abstract

Nilaparvata lugens is one of the important pests for rice plants. The presence of *Nilaparvata lugens* in rice plants can affect their productivity of rice plants. Attacks from *Nilaparvata lugens* can cause the rice to experience crop failure. The application of *Lecanicillium lecanii* to rice is effective in controlling the brown planthopper pest. The use of *Lecanicillium lecanii* as a biopesticide is environmentally friendly and leaves no residue so it is safe to use. The research was conducted at the Vertebrate Pests Plant Pest Laboratory, Faculty of Agriculture, Gadjah Mada University, Yogyakarta. Four treatments namely A (Control), B (Instar 1-2), C (Instar 3), and D (Instar 4). Parameters observed were the percentage of mortality and the LT50 value of the fungus *Lecanicillium lecanii* against the nymph *Nilaparvata lugens*. The results of research on the application of *Lecanicillium lecanii* can cause mortality in *Nilaparvata lugens* with $Lt50 \pm 203$ hours (4-5 instars). *Lecanicillium lecanii* was effective in controlling each developmental phase of *Nilaparvata lugens* but there was no difference in nymphs instars 1-2, 3, or 4-5.

Keywords : Brown plant hopper, rice, *Lecanicillium lecanii*

Yogyakarta,

Thesis Supervisor

Author

Dr. Ir. Witjaksono, M.Sc.

Atina Pramesti