

## INTISARI

Wereng coklat (*Nillaparvata lugens* S.) merupakan salah satu hama utama tanaman padi yang dapat menyebabkan penurunan produktivitas padi di Indonesia. Salah satu alternatif untuk mengendalikan hama wereng coklat yaitu dengan menggunakan pestisida organik dari ekstrak biji dan daun mahoni (*Swietenia mahagoni*). Penelitian bertujuan untuk mendapatkan pestisida organik dari ekstrak biji dan daun mahoni yang efektif mengendalikan hama wereng coklat dan mengetahui pengaruh aplikasi ekstrak biji mahoni dan daun mahoni terhadap tanaman padi. Penelitian dilaksanakan di Laboratorium Proteksi dan *Green House* Fakultas Pertanian, Universitas Muhammadiyah Yogyakarta, pada bulan Februari 2018 sampai Mei 2018. Penelitian dilakukan dengan menggunakan metode eksperimental dengan rancangan percobaan faktor tunggal yang disusun dalam Rancangan Acak Lengkap dengan 3 ulangan. Perlakuan yang diujikan adalah ekstrak biji mahoni dengan konsentrasi 4%, 6%, 8%; daun mahoni dengan konsentrasi 8%, 10%, 12%; pestisida imidakloprid dan tanpa pestisida sebagai pembandingan. Hasil penelitian menunjukkan ekstrak biji mahoni dengan konsentrasi 6% dan ekstrak daun mahoni dengan konsentrasi 10% efektif mengendalikan hama wereng coklat pada tanaman padi dengan mortalitas hama wereng coklat sebesar 83,33%. Ekstrak biji dan daun mahoni tidak memberikan pengaruh negatif terhadap tinggi tanaman, jumlah anakan, jumlah daun, warna daun, bobot segar dan bobot kering tanaman padi.

Kata kunci: Efektif, Imidakloprid, Konsentrasi, Pestisida.

## **ABSTRACT**

*Brown planthopper (Nillaparvata lugens S.) is one of the main pests of rice plants that decrease rice productivity in Indonesia. An alternative to control brown plant hopper is using organic pesticides from mahogany seeds extract and mahogany leaf extract (Swietenia mahagoni). A purpose of this research was to obtain the concentration of mahogany seed extract and leaf extract which is effective for controlling the brown planthopper and to determine the effect of the application of mahogany seed extract and leaf extract on growth of rice plants. This research was conducted in Plant protection laboratory and Green house, Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta, from February to Mei 2018. This research used an experimental research and arranged in Completely Randomized Design (CRD), with single factor experimental design and three replications. The treatments were concentration of mahogany seed extract which was consisted of 3 levels: 4%, 6%, and 8%; mahogany leaf extract was consisted of 3 levels: 8%, 10% and 12%, while Imidaklopid pesticide and without pesticide were used as comparison treatments. The results showed that 6% mahogany seed extract and 10% mahogany leaves extract were effective in controlling brown planthopper pests on rice plants with mortality 83.33%. Moreover, mahogany seed extract and mahogany leaf extract did not give a negative effect on plant height, number of tillers, number of leaves, leaf color, fresh weight and dry weight of rice plants.*

*Key word: Concentration, Effective, Imidaclopid, Pesticide.*