INTISARI

Wereng batang cokelat (*Nilaparvata lugens*) adalah salah satu hama utama pada tanaman padi karena kemampuan menyebabkan kerusakan secara langsung dan sebagai vektor dari RGSV dan RRSV. Infeksi virus kerdil padi selalu ditemukan di daerah yang terserang wereng batang cokelat dengan berbagai gejala. Penelitian ini bertujuan untuk mengetahui hubungan antara populasi vektor dan insidensi penyakit kerdil padi di empat ekosistem yang berbeda (padi-padi, padi-cabai, padi-jagung, dan padi-bero) di Kecamatan Polanharjo, Kecamatan Ngawen, dan Kecamatan Karanganom, Kabupaten Klaten, Jawa Tengah. Pengamatan lapangan dilakukan untuk mengamati gejala, insidensi penyakit kerdil padi, dan populasi serangga vektor di setiap petak sample. Insidensi penyakit tertinggi terjadi di ekosistem padi-padi dan peningkatan insidensi berkorelasi dengan peningkatan wereng batang coklat (R *square* sebesar 0,712). Hubungan antara populasi wereng batang coklat dengan insidensi penyakit mengalami penurunan ketika tanaman padi ditanam dengan tanaman lainnya. Hasil ini menunjukkan bahwa penerapan sistem monokultur memiliki peran yang penting dalam keparahan insidensi penyakit.

Kata kunci : Ekosistem, padi, WBC, RRSV, RGSV.

ABSTRACT

*Brown planthopper (*Nilaparvata lugens *[Hemiptera: Delphacidae]) is one of the main pests in rice due to its ability to cause direct damage and to vectorRGSV and RRSV. Infection of rice dwarf diseases are always found in areas infested by brown planthopper with various symptoms. This study aimed to determine the relationship between vector populations and the incidence of rice dwarf disease in four different ecosystems(rice-rice, rice-chili, rice-corn, and rice-open land) in Polanharjo District, Ngawen District, and Karanganom District, Klaten Regency, Central Java. Field observations were carried out to observe the symptoms, rice dwarf disease incidence, and vector populations in each sample plot. The highest disease incidence occured in the ecosystem of rice-rice and increase in the incidence was strongly correlated with the increase of brown planthopper (R square of 0.712). The relationship between the population of brown planthopper with the disease incidence lowered when the rice was planted in adjacent with other crops. These findings may suggest that having monoculture system of rice plays an important role in the severity of disease incidence.*

Keywords : Ecosystem, rice, WBC, RRSV, RGSV