

Abstract

The Brown Planthopper (*Nilaparvata lugens*) is one of the rice main pests. Paddy with different plant ages are commonly found in farms which provide continuous food for *N. lugens*. This research was conducted to determine the preferences of *N. lugens* and its main predators to different rice ages under field conditions. Three villages namely Kiran, Ng alas, and Buntalan, the District of Klaten, were selected. In these farms, four rice plots consisting of different rice stages (planting preparation, 1, 3, and 4 weeks after planting) were selected as the observation sites. Population of *N. lugens* and its main predators were observed weekly by counting their population in 30 paddy hills per plot. The population of *N. lugens* was relatively higher in the younger paddy plants than that in older plants and there was a trend that its population slightly increased at the end of the observation which may be related with early rainy season. Interestingly, the population of the main predators was consistently higher than that of *N. lugens* in all different paddy plant ages. These findings may indicate that the predators could play an important role in determining the early stage of the *N. lugens* population growth.

Keywords: *Nilaparvata lugens*, predators, population dynamics, paddy, Klaten.

Intisari

Wereng batang coklat (*Nilaparvata lugens*) adalah salah satu hama utama tanaman padi. Padi dengan umur tanaman berbeda biasanya ditemukan di lahan yang menyediakan makanan terus menerus untuk *N. lugens*. Penelitian ini dilakukan untuk menentukan preferensi *N. lugens* dan predator utamanya terhadap umur padi yang berbeda pada hamparan padi di desa Kiran, Ngals, dan Buntalan, Kabupaten Klaten. Pada hamparan padi dipilih empat kriteria petak padi yang terdiri dari persiapan penanaman, 1, 3, dan 4 minggu setelah tanam sebagai lokasi pengamatan. Populasi *N. lugens* dan predator utamanya diamati setiap minggu dengan menghitung jumlah populasi di 30 rumpun padi per plot. Populasi *N. lugens* relatif lebih tinggi di tanaman padi yang lebih muda daripada tanaman yang lebih tua dan ada kecenderungan bahwa populasinya sedikit meningkat pada akhir pengamatan yang mungkin terkait dengan awal musim hujan. Yang menarik, populasi predator utama secara konsisten lebih tinggi daripada populasi *N. lugens* di semua umur tanaman padi yang berbeda. Temuan ini dapat menunjukkan bahwa predator dapat memainkan peran penting dalam menentukan tahap awal pertumbuhan populasi *N. lugens*.

Kata Kunci : *Nilaparvata lugens*, predator, dinamika populasi, padi, Klaten.