

RINGKASAN

Padi (*Oryza sativa* L.) merupakan salah satu tanaman serealia penting dunia dan merupakan makanan pokok bagi negara-negara Asia Tenggara. Data menunjukkan bahwa produksi tanaman padi mengalami penurunan, baik dari segi jumlah maupun kualitasnya. Hama serangga merupakan penyebab utama tekanan biotik yang membatasi hasil panen di seluruh negara penghasil padi. Keberadaan hama tersebut dapat ditekan dengan pengendalian secara terpadu, salah satunya menggunakan musuh alami.

Penelitian ini mengetahui intensitas serangan hama, keanekaragaman dan keseragaman hama dan musuh alami, serta mengetahui kelimpahan hama dan musuh alami Inpago Unsoed Protani pada fase generatif di dua lokasi berbeda, yaitu Kabupaten Purbalingga dan Kabupaten Brebes. Penelitian dilaksanakan pada Oktober 2024–Februari 2025 di Desa Majasari dan Desa Pakujati. Metode pengambilan sampel meliputi *sweep net*, perangkap kuning, dan pengamatan langsung pada 20 titik sampel per lokasi. Intensitas serangan dihitung dengan menggunakan rumus kerusakan tidak mutlak. Indeks keanekaragaman dihitung menggunakan rumus Shannon–Weiner, sedangkan kemerataan menggunakan indeks *Evenness*.

Hasil penelitian menunjukkan bahwa intensitas serangan hama mengalami peningkatan di kedua lokasi, dengan intensitas serangan hama di lokasi Desa Pakujati lebih tinggi. Indeks keanekaragaman hama di Desa Majasari rendah ($H'=0,89$) dan musuh alami sedang ($H'=1,72$), sedangkan di Desa Pakujati keanekaragaman hama sedang ($H'=1,57$) dan musuh alami tinggi ($H'=1,93$). Indeks keseragaman hama di Desa Majasari rendah ($E=0,49$) dan musuh alami tinggi ($E=0,78$), sedangkan di Desa Pakujati keseragaman hama sedang ($E=0,68$) dan musuh alami tinggi ($E=0,87$). Kelimpahan hama didominasi oleh *Leptocorica* sp. di kedua lokasi, sedangkan musuh alami di Desa Majasari didominasi oleh *Coccinella transversalis*, sedangkan di Desa Pakujati didominasi oleh *Sepedon* sp.

SUMMARY

Rice (Oryza sativa L.) is one of the world's most important cereal crops and serves as a staple food for Southeast Asian countries. Data indicate that rice production has declined in both quantity and quality. Insect pests are the primary cause of biotic stress that limits yields across rice-producing countries. The presence of these pests can be suppressed through integrated pest management, one of which involves the use of natural enemies.

This study aimed to assess pest infestation intensity, diversity and evenness of pests and natural enemies, as well as to determine the abundance of pests and natural enemies of Inpago Unsoed Protani rice in two different locations, namely Purbalingga and Brebes. The research was conducted from October 2024 to February 2025 in Majasari Village and Pakujati Village. Sampling methods included sweep netting, yellow pan traps, and direct observations at 20 sampling points per location. Infestation intensity was calculated using the non-absolute damage formula. Species diversity was calculated using the Shannon–Weiner index, while evenness was calculated using the Evenness index.

*The results showed that pest infestation intensity increased in both locations, with higher infestation levels recorded in Pakujati Village. The pest diversity index in Majasari Village was low ($H' = 0.89$) and natural enemy diversity was moderate ($H' = 1.72$), whereas in Pakujati Village pest diversity was moderate ($H' = 1.57$) and natural enemy diversity was high ($H' = 1.93$). The pest evenness index in Majasari Village was low ($E = 0.49$) and natural enemy evenness was high ($E = 0.78$), while in Pakujati Village pest evenness was moderate ($E = 0.68$) and natural enemy evenness was high ($E = 0.87$). Pest abundance in both locations was dominated by *Leptocorisa* sp., whereas natural enemy abundance was dominated by *Coccinella transversalis* in Majasari Village and by *Sepedon* sp. in Pakujati Village.*