

ABUNDANCE OF INSECT PESTS IN ORGANIC AND CONVENTIONAL RICE FIELD IN KARANG SARI VILLAGE, BELITANG DISTRICT III, OKU TIMUR REGENCY

ABSTRACT

Rice fields are land that is managed and drained of water for planting medium for lowland rice (*Oryza sativa* L.). In its management, rice fields are divided into two, namely organic and conventional rice fields. Organic rice fields are managed using organic materials such as vegetable pesticides, biological agents and natural enemies. Meanwhile, conventional rice fields are agricultural systems using chemical fertilizers and chemical control. There are several types of insects that have the potential as pests, namely plant-eating insects (*phytophages*), especially cultivated plants. This research was carried out for 3 months, namely December 2021-March 2022 in organic and conventional rice fields in Karang Sari Village, Belitang III District, East OKU Regency. Determination of the location of the station is done randomly using the purposive random sampling method with 2 station points. The sampling method was carried out by the relative method, namely by using traps (net traps, adhesive yellow traps, and light traps). Based on the results of research conducted on organic rice fields found as many as 136 tails and 7 species of insect pests, namely *Nillaparvata lugens* Stal. (brown planthopper), *Nephotettix apicalis* Mot. (Green leafhopper), *Scirpophaga incertulas* Walker. (rice stem borer), *Atherigona* sp. (rice seed fly), *Leptocorisa oratorius* (walang sangit), *Oxya* sp. (rice grasshopper), and *Chrysochus cobaltinus*. As for conventional rice fields, there were 367 and 11 species of insect pests of rice plants as follows: *Nillaparvata lugens* Stal. (brown planthopper), *Sogatella furcifera* Horv. (White-backed planthopper), *Nephotettix apicalis* Mot. (Green leafhopper), *Cofana spectra* (White planthopper), *Scirpophaga incertulas* Walker. (rice stem borer), *Cnaphalocrosis medinalis* GUENEE (rice leaf roller), *Atherigona* sp. (rice seed fly), *Leptocorisa oratorius* (walang sangit), *Nezara viridula* (Ladybug), *Oxya* sp. (rice grasshopper), and *Chrysochus cobaltinus*. The number of individuals found in organic rice fields was 136 individuals, while in conventional rice fields as many as 367 individuals. The highest abundance of insect pests was found in conventional rice fields compared to organic rice fields. With a diversity index ranging from 1.4 to 2.2 . The uniformity index ranged from 0.6-0.9 and the dominance index ranged from 0.3-0.1.

Keywords: Organic Rice Fields, Conventional Rice Fields, Pesticides, Moles, Insect Pests

KELIMPAHAN SERANGGA HAMA PADA SAWAH ORGANIK DAN KONVENSIONAL DI DESA KARANG SARI KECAMATAN BELITANG III KABUPATEN OKU TIMUR

ABSTRAK

Sawah merupakan lahan yang dikelola dan dialiri air untuk media tanam tanaman padi sawah (*Oryza sativa L.*). Dalam pengelolaannya sawah dibedakan menjadi dua yaitu sawah organik dan konvensional. Sawah organik dalam pengelolaannya menggunakan bahan organik seperti pestisida nabati, agen hayati dan musuh alami. Sedangkan sawah konvensional merupakan sistem pertanian dengan menggunakan pupuk kimia dan pengendalian secara kimiawi. Terdapat beberapa jenis serangga yang berpotensi sebagai hama yaitu serangga pemakan tumbuhan (*fitofagus*) khususnya tumbuhan yang dibudidayakan. Penelitian ini dilaksanakan selama 3 bulan yaitu Desember 2021- Maret 2022 di sawah organik dan konvensional desa Karang Sari Kecamatan Belitang III Kabupaten OKU Timur. Penentuan lokasi stasiun dilakukan secara acak dengan menggunakan metode *purposive random sampling* sebanyak 2 titik stasiun. Metode pengambilan sampel dilakukan dengan metode nisbi yaitu dengan menggunakan alat-alat perangkap (perangkap jaring, perangkap kuning berperekat, dan perangkap cahaya). Berdasarkan hasil penelitian yang dilakukan pada sawah organik ditemukan sebanyak 136 ekor dan 7 spesies serangga hama yaitu *Nillaparvata lugens Stal.* (Wereng coklat), *Nephotettix apicalis Mot.* (Wereng hijau), *Scirpophaga incertulas Walker.* (Penggerek batang padi), *Atherigona sp.* (Lalat bibit padi), *Leptocorisa oratorius* (walang sangit), *Oxya sp.* (Belalang sawah), dan *Chrysochus cobaltinus*. Adapun pada sawah konvensional ditemukan sebanyak 367 dan 11 spesies serangga hama tanaman padi yakni sebagai berikut: *Nillaparvata lugens Stal.* (Wereng coklat), *Sogatella furcifera Horv.* (Wereng punggung putih), *Nephotettix apicalis Mot.* (Wereng hijau), *Cofana spectra* (Wereng putih), *Scirpophaga incertulas Walker.* (Penggerek batang padi), *Cnaphalocrosis medinalis GUENEE* (Penggulung daun padi), *Atherigona sp.* (Lalat bibit padi), *Leptocorisa oratorius* (walang sangit), *Nezara viridula* (Kepik), *Oxya sp.* (Belalang sawah), dan *Chrysochus cobaltinus*. Kelimpahan serangga hama paling tinggi ditemukan di sawah konvensional dibandingkan dengan sawah organik. Dengan indeks keanekaragaman berkisar 1,4-2,2. Indeks keseragaman berkisar antara 0,6-0,9 dan Indeks dominasi berkisar antara 0,3-0,1.

Kata Kunci: Sawah Organik, Sawah Konvensional, Pestisida, Mol, Serangga hama