

## INTISARI

Penggunaan pestisida secara terus menerus dan berlebihan di lahan padi konvensional berdampak negatif terhadap ekosistem seperti berkurangnya keanekaragaman musuh alami. Sedangkan padi organik yang tanpa menggunakan aplikasi pestisida diharapkan dapat meningkatkan peran dan fungsi ekosistem termasuk meningkatnya keanekaragaman dan kelimpahan musuh alami. Penelitian ini bertujuan untuk mengetahui keanekaragaman, kelimpahan musuh alami, dan potensi pengendalian hayati oleh musuh alami pada padi organik dan konvensional. Penelitian dilakukan dengan menggunakan metode survei di Desa Kebonagung, Kecamatan Imogiri, Bantul, Yogyakarta di masing-masing lima petak padi organik dan konvensional. Untuk mengetahui keanekaragaman dan kelimpahan musuh alami, metode perangkap musuh alami yang digunakan yaitu *sweeping net* dan *yellow sticky trap* yang dilakukan pada 60 HST, 70 HST, dan 80 HST. Hasil penelitian menunjukkan bahwa keanekaragaman musuh alami (predator dan parasitoid) pada lahan organik dan lahan konvensional tidak berbeda nyata dengan rata-rata nilai indeks keanekaragaman (Shannon `H) musuh alami pada lahan organik 1,3168 dan lahan konvensional 1,3596. Sementara itu, kelimpahan musuh alami (predator dan parasitoid) pada lahan organik dan lahan konvensional juga tidak berbeda nyata dengan rata-rata nilai indeks dominansi (Simpson `S) musuh alami pada lahan organik 0,6530 dan lahan konvensional 0,6190. Sehingga potensi pengendalian hama oleh musuh alami di lahan padi organik di Desa Kebonagung tidak berbeda dengan di lahan padi konvensional. Dari penelitian ini dapat disimpulkan bahwa peran dan fungsi ekosistem sawah organik dan konvensional di Desa Kebonagung dapat ditingkatkan dengan memaksimalkan peran dari musuh alami.

Kata kunci: Keanekaragaman, Kelimpahan, Musuh alami padi, Pertanian organik, Pertanian konvensional.

## **ABSTRACT**

*The continuous and excessive use of pesticides in conventional paddy fields has a negative impact on the ecosystem such as the reduced diversity of natural enemies. While organic paddy field without using the application of pesticides is expected to increase the role and function of ecosystems including increased abundance and diversity of natural enemies. The study was conducted to determine the diversity, abundance of natural enemies, and potential of biological control by natural enemies in organic and conventional paddy field. A survey was conducted in Kebonagung Village, Imogiri District, Bantul, Yogyakarta in five fields of organic and conventional paddy fields. To find out the diversity and abundance of natural enemies, sweeping net and yellow sticky trap was used to collect the natural enemies at 60 day after transplanting (DAT), 70 DAT, and 80 DAT. The results showed that the diversity of natural enemies (predators and parasitoid) was not significantly between organic and conventional paddy fields. Shannon `H index on organic fields was 1.3168 and conventional was 1.3596. Meanwhile, the abundance of natural enemies (predators and parasitoid) was also not significantly different between organic land and conventional paddy fields. Simpson `S index of natural enemies on organic fields was 0.6530 and conventional was 0.6190. The potential for pest control by natural enemies in organic paddy fields in Kebonagung Village was no different than in conventional paddy fields. From this study can be concluded that the role and function of the ecosystem of organic and conventional paddy fields in Kebonagung Village can be increased by maximizing the role of natural enemies.*

*Keywords: Diversity, Abundance, Natural enemy rice plant, Organic field, Conventional field.*