

**KEANEKARAGAMAN SERANGGA HAMA DAN MUSUH
ALAMI PADA PERTANAMAN PADI YANG DITANAMI
BEBERAPA JENIS REFUGIA DI NAGARI LUBUK GADANG
KABUPATEN SOLOK SELATAN**

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ABSTRAK

Keanekaragaman dan kelimpahan serangga dapat ditingkatkan melalui konservasi musuh alami dengan penanaman refugia di sekitar pertanaman padi. Penelitian ini bertujuan untuk mengetahui pengaruh beberapa jenis refugia terhadap keanekaragaman serangga hama dan musuh alami serta tingkat serangan hama. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) terdiri atas 6 perlakuan dan 4 ulangan. Perlakuan terdiri atas lima jenis refugia (kenikir, babadotan, krokot, jengger ayam dan marigold). Varietas padi yang digunakan adalah Junjuang. Variabel pengamatan meliputi jumlah jenis, jumlah individu, kepadatan populasi serangga dan tingkat serangan hama. Hasil penelitian menunjukkan bahwa total individu yang ditemukan sebanyak 1167 ekor, yang terdiri dari hama, predator dan parasitoid. Serangga hama didominasi oleh *Cicadullina bipunctata* (Hemiptera: Cicadellidae) (169 ekor), predator didominasi oleh *Verania lineata* (Coleoptera: Coccinellidae) (81 ekor) dan parasitoid didominasi oleh *Opius* sp. (Hymenoptera: Braconidae) (54 ekor). Nilai indeks keanekaragaman tertinggi terdapat pada tanaman padi yang dikelilingi bunga marigold ($H'=3,02$), akan tetapi indeks dominansi tergolong rendah (0,07) dan indeks kemerataan tergolong tinggi (0,86). Secara umum tanaman berbunga tidak mempengaruhi jenis, kelimpahan, kepadatan populasi, persentase rumpun terserang, dan hasil panen. Tanaman berbunga dapat menurunkan intensitas serangan *Nilaparvata lugens* dan *Leptocorisa oratorius*, namun hanya Jengger ayam dan Marigold yang dapat menurunkan intensitas serangan *Scirpophaga incertulas*. Hal ini menunjukkan bahwa Jengger ayam dan Marigold memiliki potensi lebih tinggi dalam menekan serangan hama.

Kata kunci : Kelimpahan, konservasi, marigold, musuh alami, pengendalian hayati.

DIVERSITY OF PEST INSECTS AND NATURAL ENEMIES IN RICE FIELDS PLANTED WITH SEVERAL TYPES OF REFUGIA IN LUBUK GADANG VILLAGE SOUTH SOLOK REGENCY

ABSTRACT

Insect diversity and abundance can be increased through the conservation of natural enemies by planting refugia around rice fields. This study aims to determine the effect of several types of refugia on the diversity of insect pests and natural enemies as well as the level of pest attacks. This study used a Randomized Block Design (RBD) consisting of 6 treatments and 4 replicates. The treatments consisted of five types of refugia (kenikir, babadotan, krokot, jengger ayam, and marigold). The rice variety used was Junjuang. The observation variables included the number of species, number of individuals, insect population density, and pest attack levels. The results of the study show that a total of 1,167 individuals were found, consisting of pests, predators, and parasitoids. Pest insects were dominated by *Cicadullina bipunctata* (Hemiptera: Cicadellidae) (169 individuals), predators were dominated by *Verania lineata* (Coleoptera: Coccinellidae) (81 individuals), and parasitoids were dominated by *Opius* sp. (Hymenoptera: Braconidae) (54 individuals). The highest diversity index value was found in rice plants surrounded by marigold flowers ($H' = 3.02$), but the dominance index was relatively low (0.07) and the evenness index was relatively high (0.86). In general, flowering plants did not affect the species, abundance, population density, percentage of infested clumps, and crop yield. Flowering plants can reduce the intensity of attacks by *Nilaparvata lugens* and *Leptocorisa oratorius*, but only Jengger ayam and Marigold can reduce the intensity of attacks by *Scirpophaga incertulas*. This indicates that Jengger ayam and Marigold have higher potential in suppressing pest attacks.

Keywords: Abundance, conservation, marigold, natural enemies, biological control.