

RINGKASAN

Kebutuhan protein untuk pemenuhan gizi dapat diperoleh dari protein hewani dan atau nabati. Jenis tanaman yang menghasilkan protein nabati contohnya adalah tanaman kacang-kacangan. Namun, protein nabati juga dapat diperoleh melalui makanan pokok seperti padi. Tanaman padi tersebut diciptakan melalui rekayasa pemuliaan, sehingga akan menghasilkan tanaman padi berprotein tinggi. Permasalahan utama pada pertanaman padi tidak terlepas dari adanya serangan hama dan penyakit. Seperti pada tanaman padi lainnya, tanaman padi berprotein tinggi juga tidak terlepas dari gangguan serangga hama.

Penelitian tentang populasi serangga hama pada pertanaman padi berprotein tinggi telah dilakukan di Kelurahan Karangwangkal Kabupaten Banyumas pada Agustus 2021 sampai Januari 2022. Penelitian dilakukan dengan menggunakan Rancangan Acak Kelompok (RAK), dengan menggunakan empat genotipe tanaman padi berprotein tinggi (Protani, Protangguh, GN95A, dan GN95B) dan satu genotipe pembanding (Ciherang). Jarak tanam yang digunakan yaitu 20 cm x 20 cm. Variabel yang diamati yaitu populasi dan tingkat kerusakan dua hama utama (wereng batang cokelat dan walang sangit). Pengamatan variabel dilakukan secara sistematis, pada saat masa vegetatif (wereng batang cokelat) dan generatif (walang sangit).

Hasil penelitian menunjukkan populasi wereng pada semua genotipe tidak berbeda nyata. Kisaran populasi wereng batang cokelat tertinggi yaitu pada genotipe Protangguh dengan kisaran 3-4 ekor per petak (5 m^2). Populasi walang sangit berbeda nyata pada genotipe yang diuji, dengan kisaran 11-20 ekor per petak dan kisaran 2-5 ekor per m^2 . Intensitas serangan wereng batang cokelat relatif rendah yaitu kurang dari 0,1% pada semua genotipe, sedangkan intensitas serangan walang sangit kisaran 10-16%. Hasil panen antar genotipe padi berbeda nyata pada bobot 100 biji, sedangkan hasil panen akibat serangan hama tidak berbeda nyata.

SUMMARY

The need for protein to fulfill nutrition can be obtained from animal or vegetable protein. Plants that produce vegetable protein, for example, are legumes. However, staple foods such as rice can also obtain vegetable protein. The rice plant was created through breeding engineering to produce high-protein rice plants. The main problem in rice cultivation is inseparable from the attack of pests and diseases. As in other rice plants, high-protein rice plants are also inseparable from insect pests.

Research on insect pest populations in high-protein rice crops was conducted in Karangwangkal Village, Banyumas Regency from August 2021 to January 2022. The research was conducted using a Randomized Block Design (RBD), using four high-protein rice genotypes (Protani, Protangguh, GN95A, and GN95B) and one comparison genotype (Ciherang). The planting distance used was 20 cm x 20 cm. The observed variables were the population and damage level of the two main pests (brown plant hopper and rice stink bug). Variable observations were made systematically, during the vegetative (brown planthopper) and generative (rice bug) periods.

The results showed that brown plant hopper populations in all genotypes were not significantly different. The highest brown plant hopper population range was in the Protangguh genotype with 3-4 individuals per plot. The brown plant hopper population showed a significant difference between genotypes, with a range of 11-20 individuals per plot and a range of 2-5 individuals per m². The intensity of the brown planthopper attack was relatively low at less than 0.1% in all genotypes, while the intensity of the rice bugs attack ranged from 10-16%. Yields among rice genotypes differed significantly on the weight of 100 seeds, while yields due to pest attacks did not differ significantly.

