

RINGKASAN

Ulat grayak *Spodoptera frugiperda* (Lepidoptera: Noctuidae) merupakan serangga yang menjadi hama utama tanaman jagung di Indonesia, bersifat polifag dan mampu menyerang lebih dari 80 jenis tanaman. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi ZPT 2,4 DMA terhadap populasi, intensitas serangan dan jenis musuh alami hama *S. frugiperda* pada pertanaman jagung.

Penelitian ini dilaksanakan di Desa Pasir Kulon, Kecamatan Karanglewas, Kabupaten Banyumas, selama 3 bulan dari bulan Agustus sampai November 2023. Penelitian dilaksanakan dengan Rancangan Acak Kelompok Lengkap (RAKL), Perlakuan yang dicoba adalah lima konsentrasi ZPT 2,4 DMA. Konsentrasi yang digunakan 3 ppm, 2,25 ppm, 1,5 ppm, 0,75 ppm dan kontrol 0 ppm masing masing perlakuan diulang sebanyak 5 kali. Variabel yang diamati yaitu populasi dan intensitas serangan hama *S. frugiperda*, serta musuh alaminya. Data penelitian diuji dengan uji F dan dilanjutkan dengan DMRT pada taraf α 5%.

Hasil penelitian menunjukkan bahwa perlakuan ZPT 2,4 DMA (1) menurunkan populasi *S. frugiperda*, sebesar 39,62% pada konsentrasi 3 ppm, sebesar 49,69% pada konsentrasi 2,25 ppm, sebesar 49,06% pada konsentrasi 1,5 ppm dan sebesar 30,19% pada konsentrasi 0,75 ppm, (2) menurunkan kerusakan tanaman akibat serangan ulat *S. frugiperda*, sebesar 39,62% pada konsentrasi 3 ppm, sebesar 49,69% pada konsentrasi 2,25 ppm, sebesar 37,74% pada konsentrasi 1,5 ppm dan sebesar 27,67% pada konsentrasi 0,75 ppm, (3) musuh alami yang dijumpai adalah laba-laba *Oxyopes salticus* (Araneae: Oxypidae), kepik *Orius insidiosus* (Hemiptera: Anthocoridae), semut *Dolichoderus* sp., semut *Paratrechina* sp., semut *Oecophylla* sp. (Hymenoptera: Formicidae), belalang *Conocephalus longipennis* (Orthoptera: Tettigoniidae), belalang sembah *Hierodula patellifera* (Mantodea: Mantidea) dan *Onychogomphus forcipatus* (Odonata: Gomphide).

Kata kunci: populasi, zat pengatur tumbuh, dimetil amina, musuh alami.

SUMMARY

The armyworm *Spodoptera frugiperda* (Lepidoptera: Noctuidae) is an insect that is the main pest of corn plants in Indonesia, is polyphagous and is capable of attacking more than 80 types of plants. This research aims to determine the effect of PGR 2.4 DMA concentration on the population, intensity of attacks and types of natural enemies of the *S. frugiperda* pest in corn plantings.

This research was carried out in Pasir Kulon Village, Karanglewas District, Banyumas Regency, for 3 months from August to November 2023. The research was carried out in a randomized complete block design (RCBD), the treatments tried were five concentrations of PGR 2.4 DMA. The concentrations used were 3 ppm, 2,25 ppm, 1,5 ppm, 0,75 ppm and control 0 ppm, each treatment was repeated 5 times. The variables observed were the population and intensity of attacks by the pest *S. frugiperda*, as well as its natural enemies. The research data was tested with the *F* test and continued with DMRT at an α level of 5%.

The results showed that PGR 2.4 DMA (1) treatment reduced the population of *S. frugiperda*, by 39.62% at a concentration of 3 ppm, by 49.69% at a concentration of 2,25 ppm, by 49.06% at a concentration of 1,5 ppm and by 30.19% at a concentration of 0,75 ppm, (2) reducing plant damage due to attacks by *S. frugiperda* caterpillars, by 39.62% at a concentration of 3 ppm, by 49.69% at a concentration of 2,25 ppm, amounting to 37.74% at a concentration of 1,5 ppm and 27.67% at a concentration of 0,75 ppm, (3) the natural enemies encountered were the spider *Oxyopes salticus* (Araneae: Oxypidae), ladybugs *Orius insidiosus* (Hemiptera: Anthocoridae), ants *Dolichoderus* sp., ants *Paratrechina* sp., ants *Oecophylla* sp. (Hymenoptera: Formicidae), grasshopper *Conocephalus longipennis* (Orthoptera: Tettigoniidae), praying mantis *Hierodula patellifera* (Mantodea: Mantidea) and *Onychogomphus forcipatus* (Odonata: Gomphidae).

Keywords: population, attack intensity, dimethyl amine, enemies.