RINGKASAN

Penelitian ini telah dilaksanakan di Laboratorium Proteksi Balai Penelitian Sungai Putih, Pusat Penilitian Karet, Kec. Galang, Kab. Deli Serdang Sumatera Utara, Provinsi Sumatera Utara. Penelitian dilaksanakan pada bulan Maret 2021 s/d April 2021. Dibimbing oleh Ibu Dr. Syamsafitri, SP., MP. sebagai Ketua Pembimbing dan Bapak Ir. Aldy Waridha, MP. sebagai Anggota Pembimbing. Tujuan dari penelitian untuk mengetahui efektifitas fungisida Anvil 50 SC dalam menghambat perkembangan penyakit gugur daun *Pestalotiopsis sp.* isolat dari kebun Bandar Betsy dan kebun Batang Toru PTPN III pada tanaman karet. Untuk melihat perbedaan ketahanan isolat *Pestalotiopsis sp.* dari kebun Bandar Betsy dan kebun Batang Toru PTPN III terhadap fungisida Anvil 50 SC.

Penelitian menggunakan Rancangan Acak Lengkap (RAL) Faktorial yang terdiri dari 2 perlakuan dengan perlakuan pertama adalah konsentrasi fungisida Anvil 50 SC yang terdiri dari 4 taraf perlakuan yaitu kontrol (H_0), Dosis 250 ppm (H_1), dosis 500 ppm (H_2), dosis 750 ppm (H_3). Perlakuan kedua adalah asal isolat jamur *Pestalotiopsis sp*. yang terdiri dari dua taraf perlakuan yaitu isolat asal Bandar Betsy (I_1) dan isolat asal Batang Toru (I_2). Parameter yang diamati adalah Identifikasi jamur *Pestalotiopsis sp*, Luas Pertumbuhan jamur *Pestalotiopsis sp.*, persentase daya hambat Anvil SC terhadap jamur *Pestalotiopsis sp*, dan kerapatan spora.

Hasil analisis statistik menunjukkan konsentrasi fungisida Anvil 50 SC secara nyata mampu menghambat luas pertumbuhan jamur *Pestalotiopsis sp*. dan persentase daya hambat bahwa Anvil 50 SC mampu menghambat perkembangan *Pestalotiopsis sp*. Karena fungisida Anvil 50 SC yang diuji berpengaruh nyata dalam menghambat perkembangan *Pestalotiopsis sp*. Fungisida Anvil 50 SC dapat menekan penyakit gugur daun pada tanaman karet. Dimana fungisida ini dapat menekan pertumbuhan patogen sehingga dapat mempengaruhi kerapatan spora dan kerapatan spora yg diuji berpengaruh nyata dalam menekan penyakit gugur daun.

Kata Kunci : *Fungisida, Anvil 50 SC, Jamur Pestalotiopsis sp.*

SUMMARY

This research has been carried out at the Protection Laboratory of the White River Research Institute. Rubber Research Center. Galang district. Regency. Deli Serdang, North Sumatra, North Sumatra Province. The research was carried out in March 2021 to April 2021. And supervised by Mrs. Dr. Syamsafitri. SP., MP. as Chief Advisor and Mr. Ir. Aldy Waridha, MP. as a Advisory Member. The purpose of this study was to determine the effectiveness of the active ingredient Anvil 50 SC in inhibiting the development of *Pestalotiopsis sp*. isolates from Bandar Betsy gardens and Batang Toru plantations of PTPN III on rubber plants. To see the difference in resistance of Pestalotiopsis sp. from Bandar Betsy plantations and PTPN III Batang Toru plantations against Anvil 50 SC fungicides.

The study used an Eatorial Completely Randomized Design (CRD) consisting of 2 treatments with the first treatment being the concentration of fungicide with the active ingredient Anvil 50 SC which consisted of 4 treatment levels, namely control (Ho). Dosage 250 ppm (H_1), dose 500 ppm (H_2), dose 750 ppm (H_3). The second treatment was the origin of the isolates of *Pestalotiopsis sp.* which consisted of two treatment levels, namely isolates from Bandar Betsy (1_1) and isolates from Batang Toru (1_2). The parameters observed were the identification of the *Pestalotiopsis sp*. development of the fungus *Pestalotiopsis sp*. percentage of broad inhibition of *Pestalotiopsis sp*. and. spore density.

The results of statistical analysis showed that the concentration of Anvil 50 SC fungicide was significantly able to inhibit the growth of *Pestalotiopsis sp*. and the inhibition that Anvil 50 SC was able to inhibit the development of *Pestalotiopsis sp*. Because the Anvil 50 SC fungicide tested had a significant effect on inhibiting the development of *Pestalotiopsis sp*. Anvil 50 SC fungicide can suppress leaf fall disease in rubber plants. Where this fungicide can suppress the growth of pathogens so that it can affect the density of spores and the density of spores tested has a significant effect on suppressing leaf fall disease.

Keywords : *Anvil 50 SC, Fungicide, Pestalotiopsis sp*