

RINGKASAN

Tanaman karet (*Hevea brasiliensis* Muell. Arg.) merupakan komoditi perkebunan yang penting dalam industri otomotif dan selama industri otomotif terus berkembang, maka karet alam akan terus dibutuhkan. Kelebihan karet alam antara lain daya lentur dan daya haus (lebih tahan lama) lebih tinggi dibanding dengan karet sintetis.

Tujuan penelitian untuk mengetahui pengaruh frekuensi stimulan berpengaruh terhadap karakter fisiologi dan produksi lateks tanaman karet klon RRIM 921. Penelitian ini dilaksanakan di PT. Perkebunan Nusantara III (Persero) Kebun Sei Putih, Afd I berada di Kecamatan Galang, Kabupaten Deli Serdang Provinsi Sumatera Utara dengan ketinggian tempat 25 mdpl serta topografi datar. Penelitian ini dilaksanakan pada Januari sampai dengan Juli 2019. Rancangan penelitian Rancangan Acak Kelompok (RAK) Non-Faktorial dengan 3 ulangan yang terdiri dari 2 taraf yaitu $E_1 = ET/15d$ dan $E_2 = ETG/27d$. Parameter yang diamati yaitu Produksi lateks (g/p/s), Kadar Karet Kering (KKK), Sucrosa, Thiol dan Pi lateks.

Hasil penelitian menunjukkan bahwa produksi lateks yang stabil dihasilkan oleh perlakuan E_1 ET/15d (Stimulan Cair) dibandingkan perlakuan E_2 ETG/27d (Stimulan gas) pada bulan Januari – Juni 2019. Kadar sukrosa tertinggi dihasilkan oleh perlakuan E_1 ET/27d sebesar 4,16 mM sedangkan Kadar Pi lateks tertinggi dihasilkan perlakuan E_2 ETG/27d sebesar 27,92 mM dan kadar Thiol tertinggi dihasilkan oleh perlakuan E_2 ETG/27d sebesar 1,01 mM.

Sesuai dengan hasil penelitian yang telah dilakukan pemberian stimulan cair dianjurkan untuk tanaman karet klon RRIM 921 berumur 12 tahun karena memberikan hasil produksi yang stabil dan tidak memberikan cekaman yang berarti.

Kata Kunci: Tanaman Karet, Stimulan, Produksi lateks, Fisiologi Lateks.

SUMMARY

Rubber plantations (*Hevea brasiliensis* Muell. Arg.) Are important plantation commodities in the automotive industry and as long as the automotive industry continues to develop, natural rubber will continue to be needed. The advantages of natural rubber include flexural strength and thirst (more durable) higher than synthetic rubber.

The purpose of this study was to determine the effect of stimulant frequency on the physiological characteristics and latex production of RRIM 921 clone rubber plants. This research was conducted at PT. Perkebunan Nusantara III (Persero) Kebun Sei Putih, Afd I is located in Galang District, Deli Serdang Regency, North Sumatra Province with a height of 25 meters above sea level and flat topography. This research was conducted in January to July 2019. The research design was a Non-Factorial Randomized Block Design with 3 replications consisting of 2 levels, namely E1 = ET / 15d and E2 = ETG / 27d. The parameters observed were latex production (g / p / s), Dry Rubber Levels (KKK), Sucrosa, Thiol and Pi latex.

The results showed that the stable production of latex produced by E1 ET / 15d (Liquid Stimulant) treatment compared to E2 ETG / 27d (Gas Stimulant) treatment in January - June 2019. The highest sucrose content produced by E1 ET / 27d treatment was 4.16 mM while the highest Pi latex content was produced by E2 ETG / 27d treatment at 27.92 mM and the highest Thiol content was produced by E2 ETG / 27d treatment at 1.01 mM.

In accordance with the results of studies that have been carried out giving liquid stimulants is recommended for RRIM 921 clone rubber plants aged 12 years because they provide stable production results and do not provide significant stress.

Key words: Rubber Plants, Stimulants, Latex Production, Latex Physiology.