

RINGKASAN

Penelitian ini dilaksanakan di Lahan Percobaan Fakultas pertanian Universitas Islam Sumatera Utara, Jalan Karya Wisata, Kecamatan Medan Johor, Kota Medan, Provinsi Sumatera Utara. Tempat ini berada pada ketinggian ± 25 meter di atas permukaan laut (mdpl), dengan topografi datar. Pada bulan Desember 2022 hingga April 2023. Penelitian ini bertujuan untuk mempelajari pengaruh pemberian pupuk organik cair kulit nanas dan Agen Hayati (*Eco Plant Protector*) terhadap pertumbuhan, dan hasil tanaman cabai merah (*Capsicum annum L.*).

Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) Faktorial dengan dua faktor yang diteliti yaitu : 1. Faktor pertama adalah pupuk organik cair kulit nanas (N) yang terdiri dari 4 taraf perlakuan, yaitu : N_0 = Kontrol (Tanpa perlakuan POC kulit nanas), N_1 = 10 ml POC + 1 liter air /polibag, N_2 = 15 ml POC + 1 liter air /polibag, N_3 = 20 ml POC + 1 liter/polibag. 2. Faktor kedua adalah Agen Hayati (*Eco Plant Protector*) (H) yang terdiri dari 4 taraf perlakuan, yaitu : H_0 = Kontrol, H_1 = 0,25 l/polibag, H_2 = 0,5 l/polibag, H_3 = 0,75 l/polibag. Parameter yang diamati adalah tinggi tanaman, diameter batang, jumlah cabang produktif, umur berbunga, umur panen, bobot buah perpolibag dan jumlah buah perpolibag.

Hasil penelitian menunjukkan bahwa pemberian POC kulit nanas berpengaruh nyata terhadap tinggi tanaman, diameter batang, umur berbunga, bobot buah per polybag dan tidak berpengaruh nyata terhadap jumlah cabang produktif, umur panen dan jumlah buah per polybag. Pada perlakuan Agen Hayati berpengaruh nyata terhadap tinggi tanaman, diameter batang, jumlah cabang produktif, umur berbunga, umur panen, jumlah buah per polybag dan bobot buah per polybag. Sedangkan interaksi aplikasi POC kulit nanas dan Agen Hayati tidak berpengaruh nyata terhadap pertumbuhan yaitu tinggi tanaman, diameter batang, jumlah cabang produktif, umur berbunga, umur panen, jumlah buah per polibag dan bobot buah per polibag.

Kata Kunci : POC Kulit Nanas, Agen Hayati, Tanaman Cabai Merah

SUMMARY

This research was conducted at the Experimental Field of the Faculty of Agriculture, Islamic University of North Sumatra, Tour Works Road, Medan Johore District, Medan City, North Sumatra Province. This place is located at an altitude of ± 25 meters above sea level (masl), with a flat topography. From December 2022 to April 2023. This study aims to study the effect of applying pineapple peel liquid organic fertilizer and a biological agent (Eco Plant Protector) on the growth and yield of red chili (*Capsicum annum L.*).

This study used a factorial Randomized Block Design (RBD) with two factors studied, namely: 1. The first factor was pineapple skin liquid organic fertilizer (N) which consisted of 4 treatment levels, namely: N_0 = Control (without POC pineapple skin treatment), N_1 = 10 ml POC + 1 liter of water / polybag, N_2 = 15 ml POC + 1 liter of water / polybag, N_3 = 20 ml POC + 1 liter / polybag. 2. The second factor is the Eco Plant Protector (H), which consists of 4 treatment levels, namely: H_0 = Control, H_1 = 0.25 l/polybag, H_2 = 0.5 l/polybag, H_3 = 0, 75 l/polybag. Parameters observed were plant height, stem diameter, number of productive branches, flowering age, harvest age, fruit weight per polybag and number of fruit per polybag.

The results showed that the application of POC pineapple peel significantly affected plant height, stem diameter, flowering age, fruit weight per polybag and had no significant effect on the number of productive branches, harvest age and number of fruits per polybag. The biological agent treatment had a significant effect on plant height, stem diameter, number of productive branches, flowering age, harvest age, number of fruits per polybag and fruit weight per polybag. While the interaction of the application of POC pineapple skin and biological agents did not significantly affect growth, namely plant height, stem diameter, number of productive branches, flowering age, harvesting age, number of fruits per polybag and fruit weight per polybag.

Keywords: POC Pineapple Skin, Biological Agents, Red Chili Plants