

RINGKASAN

Penelitian ini dilaksanakan di lahan percobaan Fakultas Pertanian Universitas Islam Sumatera Utara, di Desa Peringgian, Kecamatan Batang Kuis, Kabupaten Deli Serdang, Provinsi Sumatera Utara dengan ketinggian Tempat \pm 25 mdpl, dengan topografi datar. Penelitian ini dibimbing oleh Ibu Dr. Ir. Noverina Chaniago, MP. selaku Ketua komisi pembimbing dan Bapak Dr. Ir. Diapari Siregar, MP. sebagai Anggota komisi pembimbing. Penelitian ini bertujuan untuk mempelajari Respon Beberapa Varietas Cabai Merah (*Capsicum annuum* L.) terhadap Kompos Mengandung Trichoderma.

Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) faktorial dengan dua faktor yaitu faktor pertama adalah berbagai varietas cabai merah (V) terdiri dari 3 taraf perlakuan, yaitu: V1 = (Varietas Cabai Lokal Sumatera), V2 = Varietas (CMK Tavi), V3 = Varietas (Ferosa). Faktor kedua adalah pemberian kompos mengandung Trichoderma terdiri dari 3 taraf perlakuan, yaitu: T1 = kompos 2,25 kg/plot tanpa Trichoderma, T2 = kompos 1,6 kg/plot kompos + Trichoderma 40 g/plot, T3 = kompos 1,2 kg/plot + Trichoderma 40 g/plot. Parameter yang diukur adalah tinggi tanaman (cm), Umur berbunga (hari), Jumlah cabang produktif (cabang), bobot buah pertanaman (g), bobot buah pertanaman sampel (g), bobot buah per plot (g).

Hasil penelitian menunjukkan uji beberapa varietas tanaman cabai merah berpengaruh tidak nyata terhadap tinggi tanaman pada umur 2 dan 4 MST, akan tetapi pada umur 6 MST beberapa varietas tanaman cabai merah berpengaruh nyata terhadap tinggi tanaman cabai merah. Dan pada pengamatan umur berbunga beberapa varietas tanaman cabai merah juga berpengaruh tidak nyata terhadap pengamatan umur berbunga, akan tetapi beberapa varietas tanaman cabai merah berpengaruh sangat nyata pada pengamatan jumlah cabang produktif, bobot buah pertanaman, bobot buah pertanaman sampel dan bobot buah perplot. Pemberian kompos yang mengandung trichoderma berpengaruh tidak nyata terhadap tinggi tanaman, umur berbunga, jumlah cabang produktif, bobot buah pertanaman, bobot buah pertanaman sampel dan bobot buah perplot pada tanaman cabai merah. Interaksi kompos yang mengandung Trichoderma dan beberapa varietas tanaman cabai merah berpengaruh nyata terhadap tinggi tanaman umur 6 MST. dan pada hasil sidik ragam umur berbunga, jumlah cabang produktif, bobot buah pertanaman, bobot buah pertanaman sampel dan bobot buah perplot menunjukkan bahwa interaksi antar keduanya berpengaruh tidak nyata.

SUMMARY

This research was carried out at the Experimental Field of the Faculty of Agriculture, Islamic University of North Sumatra, Batang Kuis District, Deli Serdang Regency, North Sumatra Province with an altitude of ± 25 meters above sea level, with flat topography. This research was supervised by Mrs. Dr., Ir. Noverina Chaniago, M.P., as Chair and Mr. Dr., Ir. Diapari Siregar, M.P., as Member. This research aims to study the response of several varieties of red chilies (*Capsicum annum* L.) to compost containing *Trichoderma*.

This research used a Factorial Randomized Group Design (RAK) with two factors studied, namely: 1. The first factor is Various Varieties of Red Chili (V) consisting of 3 levels of treatment, namely: V1 = (Local Sumatran Chili Variety), V2 = Variety (CMK Tavi), V3 = Variety (Ferosa). The second factor is Compost Containing *Trichoderma* consisting of 3 levels of treatment, namely: T1 = Compost (10 Tons/Ha, or 2.25 kg/plot), T2 = Compost + *Trichoderma* (7.5 Tons/Ha, or 1.6 kg/plot + 40 g/plot), T3 = Compost + *Trichoderma* (5 Tons/Ha, or 1.2 kg/plot + 40 g/plot). The parameters measured were plant height (cm), flowering age (days), number of productive branches (branches), fruit weight per plant (g), fruit weight per sample plant (g), fruit weight per plot (g).

The results of the research showed that several varieties of red chili plants had no significant effect on plant height at the ages of 2 and 4 WAP, however at the age of 6 WAP several varieties of red chili plants had a significant effect on the height of the red chili plants. And when observing flowering age, several varieties of red chili plants also had an insignificant effect on observing flowering age, however, several varieties of red chili plants had a very significant effect on observing the number of productive branches, fruit weight per plant, fruit weight per sample plant and fruit weight per plot. Providing compost containing *trichoderma* had no significant effect on plant height, flowering age, number of productive branches, fruit weight per plant, fruit weight per sample plant and fruit weight per plot in red chili plants. The interaction of compost containing *Trichoderma* and several varieties of red chili plants had a significant effect on plant height at 6 WAP. and the results of the variation in flowering age, number of productive branches, fruit weight per plant, fruit weight per sample plant and fruit weight per plot showed that the interaction between the two had no significant effect.