

RINGKASAN

Penelitian ini dilaksanakan di Lahan Percobaan Fakultas Pertanian Universitas Islam Sumatera Utara, Jln. Karya Wisata, Gedung Johor Kecamatan Medan Johor Kota Madya Medan, Provinsi Sumatera Utara dengan ketinggian Tempat ± 25 meter dpl, dengan topografi datar. Penelitian ini dimulai bulan Desember sampai selesai.

Penelitian untuk mengetahui Pengaruh pupuk suburkali butir dan pupuk npk 16-16-16 terhadap pertumbuhan dan produksi tanaman kacang hijau (*vigna radiata*), serta ketersediaan k pada tanah ultisol dipolybag, Untuk mengetahui pengaruh interaksi pemberian suburkali butir dan pupuk npk 16-16-16 terhadap pertumbuhan dan hasil tanaman kacang hijau (*vigna radiata*). Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) faktorial yang terdiri dari dua faktor. Faktor pertama yaitu Faktor kedua yaitu pupuk subur kali butir dengan dosis anjuran 150, 300, 450 Kg/Ha pada 4 Taraf Perlakuan yaitu: $S_0 = 0$ gr/polybag; $S_1 = 0,75$ g/polybag; $S_2 = 1,75$ g/polybag; $S_3 = 2,25$ g/polybag. N: $N_0 : 0$ gr/polybag, $N_1 : 0,250$ gr/polybag, $N_2 : 0,500$ gr/polybag, $N_3 : 0,750$ gr/polybag. Parameter pengamatan meliputi tinggi tanaman, diameter batang, jumlah polong, bobot polong, bobot biji kering, bobot 100 biji kering, serta ketersediaan K pada tanah ultisol.

Berdasarkan hasil analisis menunjukkan bahwa pemberian dapat dilihat bahwa perlakuan pemberian pupuk suburkali berpengaruh nyata terhadap tinggi tanaman kacang hijau pada 6 mst. Tinggi tanaman tertinggi diperoleh pada perlakuan S_3 (1,125 g pupuk subur kali/polibag) yaitu 21,97 cm yang berbeda nyata dengan perlakuan S_0 (tanpa pupuk) yaitu 20,35 cm dan berbeda nyata pula terhadap perlakuan S_1 (0,375 g pupuk subur kali/polibag) yaitu 20,78 cm namun tidak berbeda terhadap perlakuan S_3 (1,125 g pupuk subur kali/polibag) yaitu 20,94 cm.

Kata Kunci : Kacang Hijau, Pupuk SuburKali Butir, Pupuk NPK 16-16-16, Tanah Ultisol.

SUMMARY

This research was conducted at the Experimental Field of the Faculty of Agriculture, Islamic University of North Sumatra, located on Karya Wisata Street, Gedung Johor, Medan Johor Subdistrict, Medan City, North Sumatra Province, at an altitude of approximately 25 meters above sea level, with flat topography. The study began in December and continued until completion.

*The objective of the study was to determine the effect of granular Suburkali fertilizer and NPK 16-16-16 fertilizer on the growth and yield of mung bean plants (*Vigna radiata*), as well as the availability of potassium (K) in Ultisol soil in polybags. The study also aimed to observe the interaction effect between the application of granular Suburkali and NPK 16-16-16 fertilizer on the growth and yield of mung bean (*Vigna radiata*). This research used a factorial Randomized Block Design (RBD) consisting of two factors. The first factor was the application of granular Suburkali fertilizer with recommended doses of 150, 300, and 450 kg/ha in four treatment levels: S0 = 0 g/polybag, S1 = 0.75 g/polybag, S2 = 1.75 g/polybag, S3 = 2.25 g/polybag. The second factor was NPK 16-16-16 fertilizer with treatment levels: N0 = 0 g/polybag, N1 = 0.250 g/polybag, N2 = 0.500 g/polybag, N3 = 0.750 g/polybag. The observed parameters included plant height, stem diameter, number of pods, pod weight, dry seed weight, weight of 100 dry seeds, and potassium availability in Ultisol soil.*

Based on the analysis results, the application of Suburkali fertilizer had a significant effect on the plant height of mung beans at 6 weeks after planting. The tallest plant height was obtained with the S3 treatment (1.125 g Suburkali fertilizer/polybag), which reached 21.97 cm. This was significantly different from the S0 treatment (no fertilizer) at 20.35 cm, and also significantly different from the S1 treatment (0.375 g Suburkali/polybag) at 20.78 cm, but not significantly different from the S2 treatment (1.125 g Suburkali/polybag) at 20.94 cm.

Keywords: *Mung Bean, Granular Suburkali Fertilizer, NPK 16-16-16 Fertilizer, Ultisol Soil.*