RINGKASAN

Penelitian ini akan dilaksanakan di lahan Percobaan Fakultas Pertanian UISU Gedung Johor, Jalan Karya Wisata, Pangkalan Mansyur, Kecamatan Medan Johor, Kota Medan Provinsi Sumatera Utara dengan Ketinggian ± 25 mdpl dengan topografi datar. Penelitian ini dilaksanakan pada bulan Pebruari hingga bulan Juni 2021. Penelitian ini dibimbing oleh Bapak Dr. Ir. H. Muhammad Rizwan, M. P sebagai Ketua Pembimbing, dan Ibu Dr. Ir. Asmanizar, M. P sebagai Anggota Pembimbing. Penelitian ini bertujuan untuk mengetahui pengaruh waktu pemangkasan dan pemupukan terhadap produksi tanaman kedelai (*Zea Mays L*) pada tanah marginal.

Penelitian ini mengunakan Rancangan Acak Kelompok (RAK) faktorial dengan dua faktor perlakuan. Faktor pertama yaitu: waktu pemangkasan terdiri dari 3 taraf yaitu :P_0 (tanpa pemangkasan), P_1 (3 MST), dan P_2 (4 MST). Faktor kedua yaitu: pemupukan terdiri dari 5 taraf yaitu : K_0 (kontrol), K_1 (pupuk organik CV. MAS), K_2 (Pupuk Organik G-LITE), K_3 (Pupuk organik Bio Hayati), K_4 (Pupuk organik DSC). Parameter yang diamati adalah tinggi tanaman, diameter batang, jumlah cabang produktif, umur berbunga, jumlah polong hampa per tanaman, jumlah polong berisi per tanaman, bobot polong berisi per tanaman, bobot polong berisi per plot, bobot biji 100 butir.

Hasil penelitian menunjukkan bahwa waktu pemangkasan berpengaruh terhadap pertumbuhan tinggi tanaman dan dapat meningkatkan jumlah cabang produktif sehingga meningkat pula jumlah polong berisi per tanaman, bobot polong berisi per tanaman dan bobot polong berisi per plot, namun tidak berpengaruh terhadap umur berbunga, jumlah polong hampa dan bobot biji 100 butir. Pemupukan berpengaruh dan meningkatkan pertumbuhan tinggi tanaman dan jumlah cabang produktif, dapat meningkatkan jumlah polong berisi per tanaman, bobot polong berisi pertanaman dan bobot polong berisi per plot, namun tidak berpengaruh terhadap umur berbunga, jumlah polong hampa per tanaman dan bobot biji 100 butir. Interaksi waktu pemangkasan dan pemupukan berpengaruh meningkatkan bobot polong berisi per tanaman dan bobot polong berisi per plot, tetapi tidak berpengaruh terhadap tinggi tanaman, jumlah cabang produktif, umur berbunga, jumlah polong hampa per tanaman, jumlah polong berisi per tanaman dan bobot biji 100 butir.

Kata Kunci : tanaman kedelai, waktu pemangkasan, pemupukan organik

SUMMARY

This research will be carried out on the experimental land of the UISU Faculty of Agriculture, Johor Building, Jalan Karya Wisata, Pangkalan Mansyur, Medan Johor District, Medan City, North Sumatra Province with an altitude of ± 25 meters above sea level with a flat topography. This research was conducted from February to June 2021. This research was supervised by Mr. Dr. Ir. H. Muhammad Rizwan, M. P as Chief Advisor, and Mrs. Dr. Ir. Asmanizar, M. P as a Advisory Member. This study aims to determine the effect of pruning and fertilization time on soybean production (Zea Mays L) on marginal soils.

This study used a factorial Randomized Block Design (RAK) with two treatment factors. The first factor is: pruning time consists of 3 levels, namely: P0 (without pruning), P1 (3 MST), and P2 (4 MST). The second factor is: fertilization consists of 5 levels, namely: K0 (control), K1 (organic fertilizer CV. MAS), K2 (G-LITE Organic Fertilizer), K3 (Bio-Bio Organic Fertilizer), K4 (DSC Organic Fertilizer). Parameters observed were plant height, stem diameter, number of productive branches, flowering age, number of empty pods per plant, number of filled pods per plant, weight of filled pods per plant, weight of filled pods per plot, and weight of 100 seeds.

The results showed that pruning time had an effect on plant height growth and could increase the number of productive branches so as to increase the number of filled pods per plant, weight of filled pods per plant and weight of filled pods per plot, but had no effect on flowering age, number of empty pods and weight. 100 seeds. Fertilization has an effect and increases plant height growth and number of productive branches, can increase the number of filled pods per plant, weight of filled pods per plant and weight of filled pods per plot, but has no effect on flowering age, number of empty pods per plant and seed weight of 100 grains. The interaction of pruning and fertilization time had an effect on increasing the weight of filled pods per plant and weight of filled pods per plot, but had no effect on plant height, number of productive branches, flowering time, number of empty pods per plant, number of filled pods per plant and seed weight of 100 grains.

Keywords: soybean plant, pruning time, organic fertilization