

APLIKASI PUPUK KALIUM DAN SILIKA TERHADAP PERTUMBUHAN DAN HASIL TANAMAN KEDELAI

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ABSTRAK

Kedelai (*Glycine max*) mempunyai prospek yang baik. Produksi kedelai Indonesia terus mengalami penurunan, disebabkan kurangnya teknik budidaya. Tujuan penelitian untuk mengetahui adanya pengaruh, interaksi dan dosis yang tepat pupuk Kalium dan Silika terhadap pertumbuhan dan hasil tanaman kedelai. Penelitian dilakukan percobaan lapangan dalam polibag menggunakan Rancangan Acak Lengkap (RAL) faktorial dengan 2 faktor, faktor I dosis pupuk Kalium dan faktor II dosis pupuk Silika, masing-masing terdapat 3 taraf dengan 3 ulangan dan setiap petak terdapat 12 tanaman. Faktor I: 0,5 g/tanaman; 0,65 g/tanaman; 0,8 g/tanaman. Faktor II: 0,5 g/tanaman; 1 g/tanaman; 1,5 g/tanaman. Kontrol tanpa pemberian Kalium dan Silika. Data diuji menggunakan kontras orthogonal taraf 5% untuk mengetahui perbedaan antara kontrol dan kombinasi perlakuan, kemudian diuji dengan ANOVA taraf 5%, selanjutnya diuji dengan *Duncan Multiple Range Test* (DMRT) pada taraf uji 5%. Hasil penelitian, perlakuan pupuk Kalium dan Silika tidak terdapat interaksi terhadap semua parameter. Dosis pupuk Kalium 0,65 g memberikan hasil terbaik pada tinggi tanaman umur 21 HST dan 28 HST, jumlah cabang primer, umur berbunga, bobot kering tanaman, dan hasil panen biji segar. Perlakuan dosis Silika 1 g nyata lebih baik pada parameter umur berbunga, bobot kering tanaman, dan jumlah polong per tanaman.

Kata kunci : *Kedelai, Kalium, Silika*

APPLICATION OF POTASSIUM AND SILICA FERTILIZER ON THE GROWTH AND YIELD OF SOYBEAN CROPS

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ABSTRACT

Soybeans (*Glycine max*) have good prospects. Indonesia's soybean production continues to decline, due to a lack of cultivation techniques. The aim of the research is to determine the influence, interaction and appropriate dosage of Potassium and Silica fertilizer on the growth and yield of soybean plants. The research was carried out as a field experiment in polybags using a factorial Completely Randomized Design (CRD) with 2 factors, factor I was the dose of Potassium fertilizer and factor II was the dose of Silica fertilizer, each with 3 levels with 3 replications and each plot containing 12 plants. Factor I: 0.5 g/plant; 0.65 g/plant; 0.8 g/plant. Factor II: 0.5 g/plant; 1 g/plant; 1.5 g/plant. Control without giving potassium and silica. The data was tested using orthogonal contrast at a 5% level to determine the differences between control and treatment combinations, then tested using ANOVA at a 5% level, then tested using the Duncan Multiple Range Test (DMRT) at a 5% test level. The results of the research showed that there was no interaction between potassium and silica fertilizer treatments for all parameters. Potassium fertilizer dose of 0.65 g gave the best results on plant height at 21 HST and 28 HST, number of primary branches, flowering age, plant dry weight, and fresh seed harvest. Treatment with a dose of 1 g of Silica was significantly better for the parameters of flowering age, plant dry weight, and number of pods per plant.

Keyword : Soybean, Potassium, Silica