

THE APPLICATION OF ORGANIC GRANULE FERTILIZER AND ANORGANIC UREA FERTILIZER TO SOYBEAN PLANTS

Mochamad Syarief R; Damanhuri
Crop Production Technology Program
Crop Production Department

ABSTRACT

The most commonly found problem faced by soybean grower is the prolonged use of inorganic fertilizer which may cause an effect to soil fertility as well as the use of urea fertilizer which exceeds the suggested dosage, leading to inefficient use of Urea. Based on the problem stated above, this research is conducted to find out the efficiency of the urea usage by applying organic granule to soybean plants. This research is conducted in August-November 2018 at Grenden Village, Puger Sub-District, Jember Regency. This research employs Randomized Block Design by utilizing 2 treatment factors. The first factor is the dosage of organic granule fertilizer, consisting of 3 levels of dosage namely, 0 kg/ha, 700 kg/ha, and 1 ton/ha. The combination of the treatment is repeated three times. The observation parameter includes plant's height after 2 weeks post planting (MST), 4 MST, 6 MST, the number of filled pods, the number of empty pods, weight of seed per sample, and weight of 100 plotted seeds. The data in this research is analyzed using Anova, followed by DMRT testing of 5%. The result of this research reveals that the dosage of the organic granule fertilizer shows insignificant effect on the parameters of the height of the plant at 2 MST, 4 MST, 6 MST, the number of filled pods, the number of empty pods, and weight of seed per sample. Regarding the application of urea fertilizer, the dosage of the organic urea fertilizer shows insignificant effect on the parameters of the height of the plant at 2 MST, 4 MST, 6 MST, the number of filled pods, the number of empty pods, weight of seed per sample, as well as the weight of 100 seeds. The interaction of the treatment dosages using organic granule fertilizer and urea fertilizer does not show significant effect on the parameters of the height of the plant at 2 MST, 4 MST, 6 MST, the number of filled pods, the number of empty pods, weight of seed per sample, as well as the weight of 100 seeds, respectively.

Keywords: Granule, Soybeans, Urea

PENGUNAAN PUPUK ORGANIK GRANUL DAN PUPUK ANORGANIK UREA PADA TANAMAN KEDELAI

Mochamad Syarief R; Damanhuri
Program Studi Teknologi Produksi Tanaman Pangan
Jurusan Produksi Pertanian

ABSTRAK

Permasalahan yang sering terjadi pada petani kedelai yaitu penggunaan pupuk anorganik secara terus menerus yang berdampak pada kesuburan tanah dan penggunaan pupuk urea yang melebihi dosis sehingga urea tidak efisien. Berdasarkan uraian permasalahan tersebut maka dilakukan suatu penelitian yaitu efisiensi penggunaan urea dengan memanfaatkan pupuk organik granul pada tanaman kedelai. Penelitian dilakukan pada bulan Agustus sampai bulan November 2018, di Desa Grenden, Kecamatan Puger, Kabupaten Jember. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) dengan 2 faktor perlakuan. Faktor pertama adalah dosis pupuk organik granul terdiri atas 3 level yaitu 0 kg/ha, 700 kg/ha dan 1 ton/ha. Faktor kedua adalah dosis urea terdiri atas 3 level yaitu 25 kg/ha, 20 kg/ha dan 15 kg/ha. Kombinasi perlakuan diulang tiga kali. Parameter pengamatan meliputi tinggi tanaman umur 2 MST (minggu setelah tanam), 4 MST, 6 MST, jumlah polong bernas, jumlah polong hampa, berat biji per sampel, dan berat 100 biji plot. Data dianalisis menggunakan Anova dilanjutkan Uji DMRT 5%. Hasil penelitian menunjukkan bahwa dosis pupuk organik granul berpengaruh nyata terhadap parameter berat 100 biji pada perlakuan 700 kg/ha dan perlakuan ini berpengaruh tidak nyata terhadap parameter pengamatan tinggi tanaman umur 2 MST, 4 MST, 6 MST, jumlah polong bernas, jumlah polong hampa, berat biji persampel. Perlakuan penggunaan dosis urea berpengaruh tidak nyata terhadap pengamatan tinggi tanaman umur 2 MST, 4 MST, 6 MST, jumlah polong bernas, jumlah polong hampa, berat biji persampel, dan berat 100 biji. Interaksi perlakuan penggunaan dosis pupuk organik granul dan dosis urea berpengaruh tidak nyata terhadap parameter pengamatan tinggi tanaman umur 2 MST, 4 MST, 6 MST, jumlah polong bernas, jumlah polong hampa, berat biji persampel dan berat 100 biji.

Kata kunci: *Granul, Kedelai, Urea.*