

INTISARI

Penelitian ini berjudul Efektivitas Pelet NPK Organik Berbahan Ampas Tahu, Tepung Darah Sapi dan Arang Sabut Kelapa dalam Budidaya Tanaman Jagung Manis (*Zea mays saccharata* S.) di Tanah Regosol. Bertujuan untuk mengetahui peran pelet NPK organik dalam menggantikan NPK anorganik pada pemupukan Jagung Manis di tanah Regosol. Penelitian dilaksanakan di Lahan Percobaan Fakultas Pertanian Universitas Muhammadiyah Yogyakarta pada bulan Maret sampai dengan Juni 2016.

Penelitian ini menggunakan metode percobaan lapangan, yang disusun dalam Rancangan Lingkungan Acak Kelompok Lengkap (RAKL) dengan rancangan perlakuan faktor tunggal yaitu dosis pelet NPK organik. Perlakuan tersebut meliputi : A = Pelet NPK organik 50 gram/tanaman (3,3 ton/hektar), B = Pelet NPK organik 60 gram/tanaman (4 ton/hektar), C = Pelet NPK organik 70 gram/tanaman (4,7 ton/hektar) dan D = Pupuk Urea 5,25 gram + SP-36 1,5 gram + KCl 1,5 gram/tanaman (Urea 350 kg + SP-36 100 kg + KCl 100 kg/hektar). Semua perlakuan diulang 3 kali dan diaplikasikan dengan metode *placement*. Parameter yang diamati meliputi tinggi tanaman, jumlah daun, bobot segar brangkasan, bobot kering brangkasan, bobot segar akar, bobot kering akar, panjang tongkol, bobot segar tongkol, diameter tongkol, jumlah larik biji per tongkol, rerata jumlah biji per larik dan potensi hasil panen (ton/hektar). Data hasil pengamatan dianalisis sidik ragam (ANOVA) pada taraf α 5 %, bila terdapat pengaruh nyata dari perlakuan yang diberikan, maka dilakukan Uji Jarak Berganda Duncan (UJGD) pada taraf α 5 %.

Hasil penelitian ini menunjukkan bahwa pelet NPK organik berbahan ampas tahu, tepung darah sapi dan arang sabut kelapa mampu menggantikan peran pupuk Urea, SP-36 dan KCl pada budidaya tanaman Jagung Manis di tanah Regosol. Pemberian pelet NPK organik dengan dosis 50 gram/tanaman (3,3 ton/hektar) merupakan dosis paling efisien bagi tanaman Jagung Manis di tanah Regosol.

Kata kunci: pelet NPK organik, Jagung Manis, tanah Regosol

ABSTRACT

The research entitled Effectiveness of Organic Fertilizer Pellets from Soybean Curd Waste, Cow Blood Meal and Charcoal of Coconut Husks for Cultivation of Sweet Corn (Zea mays saccharata S.) In Regosol Soil. The aim of this research was studying the role of organic fertilizer pellets which contained Nitrogen (N), Phosphorous (P), and Potassium (K) to substitute inorganic fertilizer (Urea, SP-36 and KCl) on fertilization of Sweet Corn in Regosol soil. This research was conducted during March until June, 2016 at Research Field, Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta.

The research was designed by using a Completely Randomized Block Design with single factor that vary in the dose of organic fertilizer pellets, consist of 4 variations of dose which repeated 3 times. The treatments were A = 50 grams of organic fertilizer pellets/plant (3,3 tons/hectare); B = 60 grams of organic fertilizer pellets/plant (4 tons/hectare); C = 70 grams of organic fertilizer pellets/plant (4,7 tons/hectare); and D = Urea 5,25 grams + SP-36 1,5 grams + KCl 1,5 grams (Urea 350 kilograms + SP-36 100 kilograms + KCl 100 kilograms/hectare). The measured parameters were plant height, number of leaves, fresh weight of shoot, dry weight of shoot, fresh weight of root, dry weight of root, length of cob, fresh weight of cob, diameter of cob, number of cob rows, number of seed per row and production per hectare. The collected data were analyzed with Analysis of Variance (ANOVA) α 5 % and for the advance test Duncan's Multiple Range Test (DMRT) α 5 % was used.

The results of this research showed that organic fertilizer pellets could replaced the use of Urea, SP-36 and KCl for Sweet Corn cultivation in Regosol soil. The application of organic fertilizer pellets with dose 50 grams/plant (3,3 tons/ha) is the most efficient dose Sweet Corn cultivation in Regosol soil.

Keywords: organic fertilizer pellets, Sweet Corn, Regosol soil