

Intisari

PENGARUH PUPUK KANDANG SAPI DAN SISTEM TANAM TERHADAP KETERSEDIAAN DAN SERAPAN N,P,K OLEH PADI SAWAH DI IMOIRI, BANTUL

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Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk kandang sapi dan pengaturan sistem tanam terhadap N, P, K tersedia tanah dan serapannya oleh padi sawah. Penelitian dilaksanakan di sawah organik milik petani di dusun Jayan, desa Kebonagung, kecamatan Imogiri, Bantul, Yogyakarta, sedangkan analisis tanah dan tanaman dilakukan di laboratorium di lingkungan Jurusan Tanah, Fakultas Pertanian, Universitas Gadjah Mada, Yogyakarta. Rancangan Percobaan menggunakan Rancangan Acak Kelompok Lengkap (RAKL), dengan menggunakan kombinasi pupuk kandang sapi pada takaran pupuk 0 ton/ha, 7,5 ton/ha, 10 ton/ha dan pengaturan jarak tanam sistem tegel (25x25cm) dan sistem legowo 2:1 (50x25x12,5cm). Sehingga ada 6 kombinasi perlakuan yang disusun secara acak dengan 3 ulangan. Total perlakuan sebanyak 18 unit. Setiap unit percobaan berukuran 4 x 4 m atau seluas 16 m². Populasi tanaman sistem tegel dalam 1 unit berjumlah 256 tanaman, sedangkan pada sistem legowo populasi tanaman berjumlah 384 tanaman. Hasil penelitian menunjukkan Pemberian dosis pupuk kandang sapi 7,5 ton/ha merupakan dosis terbaik karena mampu memberikan hasil maksimal terhadap serapan total N,P,K tanaman padi serta memberikan hasil maksimal juga terhadap produktivitas tanaman padi yaitu sebesar 10,0 ton/ha. Kemudian perlakuan sistem tanam legowo merupakan sistem tanam terbaik karena mampu untuk memberikan hasil yang maksimal terhadap nilai rerata N,P,K tersedia tanah, serapan N,P,K tanaman padi, serta memberikan hasil yang maksimal terhadap produktivitas padi yaitu sebesar 9,55 ton/ha.

Kata Kunci : pupuk kandang Sapi, sistem jajar legowo, sistem tegel, serapan NPK, produksi padi

Abstract

THE INFLUENCE OF COW MANURE AND PLANTING SYSTEM ON N, P, K AVAILABILITY, AND NUTRIENT UPTAKE OF LOW LAND RICE IN IMOIRI, BANTUL

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The aims of experiments were to study the influence of cow manure and planting system on nutrients (N, P and K) availability, and also nutrient uptake of low land rice. The experiment was conducted in organic low land rice field in Dusun Jayan, Kebonagung Village, Imogiri Sub District, Bantul District, Yogyakarta Province, while the soil analyses was carried out at laboratory of Agriculture Faculty, Gadjah Mada University. The experiment was using Randomized Complete Block Design with three replications. The treatments were the rates of cow manure namely 0 ton ha⁻¹, 7.5 tons ha⁻¹ and 10 tons ha⁻¹ and planting systems namely Tegel system (25x25cm) and Legowo system of 2:1(50x25x12,5cm), therefore there were six combinations treatments. The total plots of treatments were 18 units and the unit plot size was 4x4 m or an area of 16 m². The number of plant population at Tegel system was 256 rice plants and at Jajar Legowo of 2:1 system were 384 plants. The results indicated that application of cow manure at the rate of 7.5 ton ha⁻¹ was the best rate because it was able to produce the maximum rice grains yield of 10.0 tons ha⁻¹. The Jajar Legowo system was the best planting system; it produced the maximum N, P and K availabilities, nutrients uptake of rice plant and highest rice yield of 9.55 tons ha⁻¹.

Keywords : cow manure, jajar legowo system, tegel system, nutrients uptake, rice yield