Pengaruh Pemberian Pupuk Organik dan Anorganik serta Sistem Tanam Jajar Legowo Padi Varietas Inpari Sidenuk Terhadap N dan P Tersedia Regosol

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk organik dan anorganik dengan system tanam jajar legowo pada varietas padi Inpari Sidenuk terhadap N dan P tersedia Regosol. Penelitian ini dilakukan di desa Sentono, Kecamatan Karangdowo, Kabupaten Klaten. Waktu penelitian dilaksanakan pada bulan April – Juni 2016. Penelitian dilakukan dengan menggunakan Rancangan Acak Kelompok Lengkap (RAKL), 2 faktorial dengan 3 ulangan. Faktor pertama yaitu macam pupuk (P) ; P1 = pupuk phonska dosis petani, P2 = pupuk organik produk BATAN + pupuk phonska 50% dosis petani, P3 = pupuk organik produk Fakultas Pertanian UPN "Veteran" Yogyakarta + pupuk phonska 50% dosis petani. Faktor kedua yaitu sistem tanam jajar legowo (J) ; J1 = jajar legowo 2 : 1, J2 = jajar legowo 3 : 1, J3 = jajar legowo 4 : 1. Parameter yang diamati meliputi analisis tekstur, kerapatan massa tanah (BV), kerapatan butir tanah (BJ), porositas, permeabilitas, KPK, C-organik, N-total, rasio C/N, serta N-tersedia dan P-tersedia tanah. Selanjutnya data dianalisis variannya menggunakan analisis varian (ANOVA) pada taraf 5%, apabila ada perbedaan antar perlakuan maka dianalisis dengan uji Duncan Multiple Range Test (DMRT) pada taraf 5%. Hasil penelitian menunjukkan bahwa pemberian pupuk organik dan anorganik serta perlakuan sistem tanam jajar legowo tidak berpengaruh terhadap N tersediadan P tersedia Regosol.Perlakuan pupuk organik produk Fakultas Pertanian UPN "Veteran" Yogyakarta + pupuk phonska 50% dosis petani dan perlakuan jajar legowo 3 : 1 menunjukkan perlakuan terbaik karena berpengaruh nyata terhadap BV, porositas, permeabilitas, KPK, C-organik, dan N-total tanah.

Kata kunci : Pupuk organik, pupuk anorganik, jajar legowo, Inpari Sidenuk

Effect of Organic and Inorganic Fertilizers and the Jajar Legowo System of Rice Varieties Inpari Sidenuk Of N and P Available Regosol

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ABSTRACT

The aims of the study is to determine the influence of a mixture of organic and inorganic fertilizers with Jajar Legowo planting system of rice varieties of Inpari Sidenuk to N and P available element on Regosol. This research was conducted in the Sentono village, subdistrict Karangdowo, Klaten district in April – June, 2016. The study was conducted by a factorial Randomized Completely Block Design (RCBD). The first factor is a kind of fertilizer (P); P1 = phonska fertilizer dose of farmers, P2 = BATAN's organic fertilizer + 50% phonska fertilizer dose of farmers, P3 = organic fertilizer productsof Agriculture Faculty of UPN "Veteran" Yogyakarta + 50% phonska fertilizer dose of farmers. The second factor is Jajar Legowo planting system (J); J1 = Jajar Legowo 2 : 1, J2 = Jajar Legowo 3 : 1, J3 = Jajar Legowo 4 : 1. With 3 replications. The parameters included texture, bulk density (BD), particle density (PD), porosity, hydraulic conductivity, CEC, organic Carbon, N-total, C/N ratio,available N and available P. Datas were analyzed by using analysis of variance (ANOVA) at the level of 5%, if there are differences among the treatments be analyzed by Duncan Multiple Range Test (DMRT) at the level of 5%. Study shows that application of some mixture of organic and inorganic fertilizers and the treatment Jajar Legowo planting system does not affect on available N and available P of Regosol. Treatment of organic fertilizer products of Agriculture Faculty of UPN "Veteran" Yogyakarta + phonska fertilizer 50% dose of farmers and the treatment Jajar Legowo 3: 1 show the best treatment for real impact on bulk density, porosity, hydraulic conductivity, CEC, organic Carbon, and N-total.

Keywords: Organic fertilizers, inorganic fertilizers, Jajar Legowo, Inpari Sidenuk