

**Pengaruh Pemberian Lumpur dan Air Kolam Ikan Lele terhadap Perubahan
Sifat Kimia Latosol dan Pertumbuhan Tanaman Padi di Desa
Patuk, Kabupaten Gunung Kidul**

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ABSTRAK

Latosol umumnya mempunyai kandungan hara makro rendah yaitu unsur P, K, Ca, Mg dan N sedangkan aktivitas Fe yang cukup tinggi. Lumpur dan air kolam ikan potensial untuk dijadikan pupuk karena mengandung hara-hara yang dibutuhkan oleh tanaman. Lumpur dan air kolam ikan mengandung banyak nitrogen (N), fosfor (P), C-organik (C) dan kation-kation basa. Tujuan penelitian untuk mengetahui pengaruh pemberian lumpur dan air kolam ikan terhadap perubahan sifat kimia latosol pada pertumbuhan tanaman padi di Desa Patuk Kabupaten Gunung Kidul. Penelitian dilakukan di rumah kaca dan laboratorium Ilmu Tanah Fakultas Pertanian UPN “Veteran” Yogyakarta. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL). Perlakuan dalam penelitian ini yaitu kontrol (P0), lumpur kolam ikan (P1), air kolam ikan (P2) dan campuran lumpur dan air kolam ikan (P3). Data hasil perlakuan didapat dengan cara menggunakan Sidik Ragam (*analisis of variance*). Untuk mengetahui rerata perlakuan digunakan uji jarak berganda *Duncan's Multiple Range Test* (DMRT) dengan jenjang nyata 5%. Parameter yang diamati adalah sifat kimia tanah C-organik, P-tersed, pH, N-total, KPK, tinggi tanaman padi dan jumlah anakan padi. Berdasarkan hasil dapat disimpulkan bahwa perlakuan P1; pemberian lumpur kolam ikan lele berpengaruh nyata terhadap perubahan sifat kimia latosol dan pertumbuhan tanaman padi. Sedangkan pada perlakuan P2; pemberian air kolam ikan lele tidak berpengaruh nyata terhadap perubahan sifat kimia latosol dan pertumbuhan tanaman padi. Perlakuan P3; Pemberian lumpur dan air kolam ikan lele berpengaruh nyata terhadap perubahan sifat kimia latosol dan pertumbuhan tanaman padi.

Kata Kunci : Latosol, Lumpur, Air Kolam Ikan dan Tanaman Padi.

Effect of Giving Mud and Catfish Pond Water to Changes in Latosol Chemical Properties and Growth of Rice Plants in the Village Patuk, Gunung Kidul Regency

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ABSTRACT

Latosol generally has a low macro-nutrient content, namely elements P, K, Ca, Mg and N while Fe activity is quite high. Mud and fish pond water are potential to be used as fertilizer because they contain nutrients needed by plants. Mud and fish pond water contain a lot of nitrogen (N), phosphorus (P), organic C (C) and base cations. The purpose of this study was to determine the effect of the provision of mud and fish pond water on changes in the chemical properties of latosol on the growth of rice plants on Patuk Village, Gunung Kidul Regency. The study was conducted in the greenhouse and Soil Science Laboratory of the Faculty of Agriculture UPN "Veteran" Yogyakarta. The research method uses a Completely Randomized Design (CRD). The treatments in this study were control (P0), fish pond mud (P1), fish pond water (P2) and a combination of fish pond mud and water (P3). The treatment result data obtained by using Variance Analysis (analysis of variance). To find out the mean treatment used Duncan's Multiple Range Test (DMRT) multiple distance test with a real level of 5%. The parameters observed were the chemical properties of C-organic soil, P-available, pH, N-total, CEC, plant height rice and the number of tillers. Based on the results it can be concluded that the treatment of P1; provision of catfish pond ponds has a significant effect on changes in the chemical properties of latosol and rice plant growth. Whereas in the P2 treatment; provision of catfish pond water does not significantly affect changes in the chemical properties of latosol and rice plant growth. P3 treatment; Provision of mud and catfish pond water significantly affect changes in the chemical properties of latosol and rice plant growth.

Keywords: Latosol, Mud, Fish Pond Water and Rice Plants.