

ABSTRAK

EFFECT OF SALTED FISH WASTE AND COW MANURE ON THE NPK AVAILABILITY AND UPTAKE OF LOWLAND RICE ON PEAT SOIL IN PELALAWAN RIAU

Dian Syafitri Ompusunggu
16/403820/PPN/04117

The low rice yield on thick peat can be overcome if the rice plants are provided with complete nutrients. Various efforts have been done to increase the productivity of Indonesian peatlands, one of which is by adding salted fish waste and cow manure. This research was carried out on a plastic house scale from October 2017 to January 15, 2018 in Pelalawan District, Pelalawan Regency, Riau. This research was conducted using a Completely Randomized Design (CRD), which were L0 = Control, L1 = 1.5 ton.ha⁻¹ of fish waste, L2 = 2.25 ton.ha⁻¹ of fish waste, L3 = 7 tons/ha of cow manure, L4 = 15 ton.ha⁻¹ of cow manure, L5 = 1.5 ton.ha⁻¹ of fish waste + 7 ton.ha⁻¹ of cow manure, L6 = 1.5 ton.ha⁻¹ of fish waste + 15 ton.ha⁻¹ of cow manure, L7 = 2.25 ton.ha⁻¹ of fish waste + 7 ton.ha⁻¹ of cow manure, L8 = 2.25 ton.ha⁻¹ of fish waste + 15 ton.ha⁻¹ of cow manure. The results showed that the application of cow manure and salted fish waste could increase the CEC value, soil total P, available P, total N soil, available N and soil total N and soil K. The best results were obtained from the treatment of 2.25 tons/ha of fish waste and 15 tons/ha of cow manure, so the cultivation of lowland rice on peat soil is recommended.

Keywords: Peat soil, Rice, Salted Fish Waste, Cow Manure

Approved by

Author

Advisor



Dr. Ir. Benito Heru Purwanto, M.P.,M.Agr



Dian Syafitri Ompusunggu

INTISARI

PENGARUH LIMBAH IKAN ASIN DAN PUPUK KANDANG SAPI TERHADAP KETERSEDIAAN DAN SERAPAN NPK PADI SAWAH PADA TANAH GAMBUT PELALAWAN RIAU

Dian Syafitri Ompusunggu
16/403820/PPN/04117

Rendahnya hasil padi pada gambut tebal dapat diatasi jika tanaman padi diberi hara lengkap. Berbagai upaya telah dilakukan untuk meningkatkan produktivitas tanah gambut Indonesia salah satunya dengan penambahan limbah ikan asin dan pupuk kandang sapi. Penelitian ini dilakukan pada skala rumah plastik pada bulan Oktober 2017 sampai 15 Januari 2018 di Kecamatan Pelalawan, Kabupaten Pelalawan Riau. Penelitian ini disusun menggunakan Rancangan Acak Lengkap (RAL) yaitu L0=Kontrol, L1= Limbah ikan 1,5 ton/ha, L2= Limbah ikan 2,25 ton/ ha, L3= Pupuk kandang sapi 7 ton/ ha, L4= Pupuk kandang sapi 15 ton/ha, L5 = Limbah ikan 1,5 ton/ha + pupuk kandang sapi 7 ton/ha, L6 = Limbah ikan 1,5ton/ha + pupuk kandang sapi 15 ton/ha, L7 = Limbah ikan 2,25 ton/ha + pupuk kandang sapi 7 ton/ha, L8 = Limbah ikan 2,25 ton/ha + pupuk kandang sapi 15 ton/ha. Hasil penelitian menunjukkan bahwa aplikasi pupuk kandang sapi dan limbah ikan asin dapat meningkatkan nilai KPK, P total tanah, P tersedia, N total tanah, N tersedia (Amonium dan Nitrat) dan K total tanah. Hasil yang terbaik didapat dari perlakuan limbah ikan 2,25 ton/ha dan pupuk kandang sapi 15 ton/ha, sehingga direkomendasikan untuk budidaya padi sawah pada tanah gambut.

Kata kunci: Tanah Gambut, Padi, Limbah Ikan Asin, Pupuk Kandang Sapi

Disetujui Oleh

Pembimbing Utama



Dr. Ir. Benito Heru Purwanto, M.P.,M.Agr

Penulis



Dian Syafitri Ompusunggu