

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian penstabil N-Urea, pupuk Urea, pupuk P (SP-36) dan kapur terhadap mineralisasi nitrogen di tanah Vertisol pada pertumbuhan, hasil, dan serapan hara padi (*Oryza sativa*). Penelitian ini telah dilakukan di Rumah kaca Laladon dan Laboratorium Kimia Tanah Balai Penelitian Tanah Bogor selama bulan Februari 2016 sampai Juli 2016.

Penelitian ini disusun dalam Rancangan Acak Lengkap (RAL) dengan percobaan faktor tunggal yang terdiri dari 7 perlakuan yaitu: Kontrol (A), Urea (B), Urea + penstabil N (C), Urea SP-36 (D), Urea + penstabil N SP-36 (E), Urea Kapur SP-36 (F), Urea + penstabil N Kapur SP-36 (G). Setiap perlakuan dilakukan pengulangan 4 kali sehingga diperoleh 28 unit percobaan.

Hasil penelitian menunjukkan bahwa penggunaan penstabil N-Urea terhadap mineralisasi nitrogen lebih baik dibandingkan dengan penggunaan pupuk Urea, pupuk SP-36, dan kapur di tanah Vertisol. Namun, penggunaan penstabil N tidak memberikan pengaruh nyata terhadap pertumbuhan, hasil, dan serapan hara tanaman padi.

Kata Kunci: Penstabil N, Pupuk P (SP-36), Kapur, Mineralisasi N, Tanah Vertisol, Padi

ABSTRACT

This research aims to determine the effect of N-Urea stabilizer, P fertilizer (SP-36) and lime on N mineralization in Vertisol on rice (Oryza sativa) cultivation. This study was completely done since February until July 2016 at the Greenhouse Laladon and Soil Chemistry Laboratory of Soil Research Institute of Bogor.

This research was designed from Completely Randomized Design (CRD), consisted of 7 treatments i.e Control or SP-36 fertilizer (A), Urea (B), Urea + N stabilizer (C), Urea + SP-36 (D), Urea + N stabilizer + SP-36 (E), Urea + Lime + SP-36 (F), Urea + N stabilizer + Lime + SP-36 (G). Each treatment was repeated 4 times. Thus, there are 28 experimental units.

The results showed that the use of N-urea stabilizer is much better on nitrogen mineralization than the use of urea fertilizer, SP-36 fertilizer, and lime. However, the use of N-urea stabilizer provide nothing on growth, yield, and nutrient uptake of rice.

Keywords: *N Stabilizer, SP-36 fertilizer, Lime, N mineralization, Vertisol, Rice*