

ABSTRAK

PENGARUH PUPUK CAMPURAN TERHADAP KANDUNGAN ALUMINIUM DAPAT DITUKAR (Al-dd) DAN pH TANAH PADA LAHAN KERING MASAM

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Lahan kering masam memiliki permasalahan, yaitu kandungan unsur hara dan bahan organik yang rendah, kandungan Aluminium dapat ditukar tinggi, dan kemasaman tanah yang tinggi. Pupuk yang diaplikasikan pada penelitian ini, yaitu pupuk anorganik (P₁) dan pupuk campuran yang terdapat 2 jenis, yaitu pupuk campuran A (P₂) dan pupuk campuran B (P₃, P₄, P₅, P₆ P₇). Tujuan penelitian ini mempelajari pengaruh pupuk campuran terhadap kandungan Al-dd dan pH tanah. Penelitian ini dilakukan di rumah kaca Laboratorium Lapang Terpadu dan analisis tanah dilakukan di Laboratorium Ilmu Tanah, Fakultas Pertanian, Universitas Lampung. Penelitian ini dirancang menggunakan Rancangan Acak Lengkap (RAL) dengan 4 ulangan dan 7 Perlakuan. Data yang diperoleh diuji homogenitas ragam dengan uji Bartlett dan aditivitas data dengan uji Tukey, kemudian dilakukan uji analisis ragam dan diuji lanjut dengan Uji BNT 5% dan diuji korelasi. Hasil penelitian menunjukkan kandungan Al-dd tanah P₂ lebih rendah dibandingkan dengan P₃, P₄, P₅, P₆ P₇ dan P₁ pada pengamatan 60 HSI, 90 HSI dan pada pengamatan 30 HSI Al-dd tanah P₁ lebih rendah dibandingkan dengan P₂, P₃, P₄, P₅, P₆ P₇. Sedangkan pH tanah pada P₂ dan P₃, P₄, P₅, P₆ P₇ lebih tinggi dibandingkan dengan P₁ pada pengamatan 30 HSI dan 90 HSI. Terdapat korelasi negatif antara pH tanah dengan P-tersedia tanah pada pengamatan 60 HSI.

Kata Kunci : Al-dd tanah, Lahan kering masam, pH tanah, Pupuk campuran

ABSTRACT

THE EFFECT OF MIXED FERTILIZER ON EXCHANGEABLE ALUMINUM CONTENT AND SOIL pH ON ACIDIC DRY LAND

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Acidic dry land has several issues, namely low nutrient and organic matter content, high exchangeable aluminum (Ex-Al) content, and high soil acidity. The fertilizers applied in this research include inorganic fertilizer (P₁) and a mixed fertilizer consisting of two types, namely mixed fertilizer A (P₂) and mixed fertilizer B (P₃, P₄, P₅, P₆, P₇). The purpose of this research is to examine the effect of mixed fertilizer on the content of Ex-Al and soil pH. This research was conducted in the greenhouse of the Integrated Field Laboratory, and soil analysis was performed in the Soil Science Laboratory, Faculty of Agriculture, University of Lampung. This research was designed using a Completely Randomized Design (CRD) with 4 replications and 7 Treatments. The data obtained were tested for homogeneity of variance using Bartlett's test and data additivity with Tukey's test, followed by analysis of variance, followed by the Least Significant Difference (LSD) test at 5% level and correlation tests. The results show that the content of Ex-Al in P₂ is lower compared to P₃, P₄, P₅, P₆, P₇, and P₁ at the 60 HSI, 90 HSI observations, and at the 30 HSI observation, Ex-Al in P₁ is lower compared to P₂, P₃, P₄, P₅, P₆, P₇. Meanwhile, the soil pH at P₂ and P₃, P₄, P₅, P₆, P₇ is higher compared to P₁ at the 30 HSI and 90 HSI observations. There is a negative correlation between soil pH and soil phosphorus available at the 60 HSI observation.

Keywords : Acidic dry land, Exchangeable Al, Mixed fertilizer, Soil pH