PEMETAAN KUALITAS TANAH PADA BEBERAPA PENGGUNAAN LAHAN DI KECAMATAN JATIPURO KABUPATEN KARANGANYAR (Soil Quality Mapping on Some Land Use in Jatipuro Regency, Karanganyar District)

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ABSTRACT

This research was conducted on January-August 2008. Used Randomized Completely Block Design (RCBD) that arranged in factorial with two factors. The first factor was 3 levels of inorganic fertilizer dosage i.e.: without inorganic fertilizer (A1), urea dosage 150 kg.ha\(^{-1}\), SP-36 dosage 75 kg.ha\(^{-1}\), KCl dosage 50 kg.ha\(^{-1}\), and ZA dosage 50 kg.ha\(^{-1}\) (A2), urea dosage 300 kg.ha\(^{-1}\), SP-36 dosage 150 kg.ha\(^{-1}\), KCl dosage 100 kg.ha\(^{-1}\), and ZA dosage 100 kg.ha\(^{-1}\) (A3). And second factor were 3 levels of quail manure dosage i.e.: without quail manure (O1), quail manure dosage 3 Mg.ha\(^{-1}\) (O2); quail manure dosage 6 Mg.ha\(^{-1}\) (O3). Statistical analysis that used was F test or Kruskal-Wallis test, Duncan Multiple Range (DMR) test at 5% in level, and Correlation test.

The research result showed that the highest P uptake efficiency, agronomy efficiency, and the grain dry weight was achieved on 50% of inorganic fertilizer recommendation dosage (urea dosage 150 kg.ha\(^{-1}\), SP-36 dosage 75 kg.ha\(^{-1}\), KCl dosage 50 kg.ha\(^{-1}\), and ZA dosage 50 kg.ha\(^{-1}\)) and 6 Mg.ha\(^{-1}\) of quail manure treatment (A2O3) in mount of 38.83%, 30.40%, and 6.22 Mg.ha\(^{-1}\) respectively. P uptake efficiency in that treatment was increased as much 13.83% than the same treatment in session I. Generally, the grain dry weight on season II lower than season I. The significant decrease in mount of 2.33 Mg/ha\(^{-1}\) found on treatment of inorganic fertilizer present in 50% of recommendation dosage (urea dosage 150 kg.ha\(^{-1}\), SP-36 dosage 75 kg.ha\(^{-1}\), KCl dosage 50 kg.ha\(^{-1}\), and ZA dosage 50 kg.ha\(^{-1}\)) and 3 Mg.ha\(^{-1}\) of quail manure treatment (A2O2).

Keywords: quail manure, inorganic fertilizer, uptake efficiency, the dry grain weight paddy