

## INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh sistem pengelolaan lahan secara organik dan konvensional terhadap sebaran fraksi-fraksi P anorganik serta mengetahui parameter yang mempengaruhi sebaran fraksi-fraksi P anorganik tersebut. Pengambilan sampel dilakukan di Desa Selopamiro, Kecamatan Imogiri, Kabupaten Bantul pada 3 jenis pengolahan lahan, yaitu lahan organik, konvensional (anorganik), dan semak belukar. Analisis data menggunakan analisis sidik ragam dengan 2 faktorial yaitu kedalaman dan jenis pengolahan lahan untuk melihat faktor mana yang menunjukkan beda nyata serta analisis korelasi untuk melihat hubungan antar parameter. Hasil penelitian menunjukkan bahwa perbedaan jenis lahan memiliki pengaruh signifikan dalam merubah sebaran beberapa fraksi P, terkecuali fraksi Al-P dan Fe-P. Lahan organik dan konvensional memiliki urutan persebaran fraksi P anorganik yang sama berdasarkan konsentrasinya, yaitu  $RS-P > Occ-P > Ca-P > Fe-P > Al-P > P-Tersedia$ , sedangkan pada semak belukar yaitu  $RS-P > Ca-P > Occ-P > Fe-P > Al-P > P-Tersedia$ . Tingkat sebaran fraksi P anorganik dipengaruhi oleh beberapa parameter seperti pH tanah yang berkorelasi signifikan terhadap konsentrasi P potensial, fraksi P tersedia, RS-P, Occ-P, dan Ca-P. BO yang berkorelasi signifikan terhadap konsentrasi P potensial dan fraksi P tersedia, serta KPK dan fraksi lempung yang berkorelasi signifikan terhadap konsentrasi P potensial, fraksi P tersedia dan Ca-P.

Kata kunci : Pertanian organik, fraksi P anorganik, fraksionasi fosfor, lahan sawah

## ***ABSTRACT***

This study aims to determine the effect of organic and conventional land management systems on the distribution of inorganic P fractions and to identify the parameters that influence the distribution of these fractions. Sampling was conducted in Selopamioro Village, Imogiri District, Bantul Regency on three types of land management, namely organic, conventional (inorganic), and shrubland. Data analysis used variance analysis with two factors, namely depth and land management type, to determine which factor showed a significant difference, and correlation analysis to determine the relationship between parameters. The results showed that the difference in land type had a significant effect on changing the distribution of some P fractions, except for Al-P and Fe-P fractions. Organic and conventional land had the same order of distribution of inorganic P fractions based on concentration, namely RS-P > Occ-P > Ca-P > Fe-P > Al-P > Available P, while in shrubland, it was RS-P > Ca-P > Occ-P > Fe-P > Al-P > Available P. The level of distribution of inorganic P fractions is influenced by several parameters such as soil pH which is significantly correlated with potential P concentration, available P fraction, RS-P, Occ-P, and Ca-P. Organic matter is significantly correlated with potential P concentration and available P fraction, while CEC and clay fraction are significantly correlated with potential P concentration, available P fraction, and Ca-P.

**Keywords:** Organic agriculture, inorganic P fractions, phosphorus fractionation, paddy field.