

## INTISARI

Penelitian ini bertujuan untuk mengkaji pengaruh penggunaan lahan (*landuse*) yang berbeda dalam satu formasi batuan yang sama terhadap perkembangan tanah dan klasifikasi tanah berdasarkan USDA, FAO/UNESCO dan PPT Bogor. Pengambilan sampel dilakukan pada tiga *landuse* yang berbeda dengan satu ulangan pada setiap *landuse*, yaitu Tegalan 1, Tegalan 2, Hutan 1, Hutan 2, Sawah 1 dan Sawah 2 di Wonogiri, Jawa Tengah. Analisis sampel ini meliputi analisis fisika, kimia dan mineralogi yang dilaksanakan di Laboratorium Fisika Tanah dan Kimia Tanah serta di Laboratorium Umum Geologi. Parameter Fisika Tanah meliputi analisis BV, BJ, porositas, dan tekstur sedangkan untuk parameter Kimia Tanah meliputi parameter pH, kapasitas pertukaran kation, kandungan bahan organik, kejenuhan basa, kandungan nitrogen, fosfor, kation tertukar, dan analisis mineralogi tanah. Hasil penelitian menunjukkan bahwa perkembangan tanah memiliki perbedaan karakteristik sifat fisika, kimia, dan mineralogi tanah. Tanah yang terbentuk di Wonogiri dan sekitarnya menurut USDA adalah *Typic humudepts*, *Kaolinitic*, netral, *isohipertermik*, *Typic Haplanthreps*, *Kaolinite*, netral, *isohipertermik*. Berdasarkan FAO/UNESCO adalah *Typic Humudepts*, *Kaolinitic*, netral, *isohipertermik* ; *Typic Haplanthreps*, *Kaolinitic*, netral, *isohipertermik*. Berdasarkan FAO/UNESCO adalah *Haplix Cambisols (Chromic, Eutric)*, *Haplix Cambisols (Chromic, Dystric)* dan *Haplix Cambisols (Chromic, Dystric, Clyic)*. Berdasarkan PPT Bogor adalah Kambisol Kromik dan Kambisol Rodik.

Kata kunci: Penggunaan lahan (*landuse*), Karakteristik Fisika, Karakteristik Kimia, Karakteristik Mineral

## **ABSTRACT**

*This research was intended to study effect of different land use in on same rock formation over soil development and soil classification according to USDA, FAO/UNESCO and PPT Bogor. Sample was taken in three different land uses with one repetition in each land use (Dry field 1, Dry field 2, Forest 1, Forest 2, wet field 1 and wet field 2) in Wonogiri, Central Java. Sample analysis included physical analysis, chemical analysis and mineralogy analysis conducted in the Soil Physic and Soil Chemical Laboratory and the General Geology Laboratory. Soil physical parameter included BV analysis, BJ, porosity, and texture analysis. Meanwhile, soil chemical parameter included pH, cation exchange capacity, organic material content, base concentration, nitrogen content, phosphor, exchanged cation, and soil mineralogy analysis. Result of the research indicated that soil development have different physical, chemical and soil mineralogy characteristics. Soil formed in Wonogiri and around according to USDA was Typic humudepts, kaolinitic, neutral, isohyperthermic; Typic haplanthepts, kaolinite, neutral, isohyperthermic. Based on FAO/UNESCO classification it is Typic humudepts, kaolinitic, neutral, isohyperthermic; Typic haplanthepts, kaolinitic, neutral, isohyperthermic. Based on FAO/UNESCO classification it was Haplix Cambisols (Chromic, Eutric), Haplix Cambisols (Chromic, Dystrict and Haplix Cambisols (Chromic, Dystrict, Cyclic). Based on PPT Bogor classification it was chromic Cambisols and rodic Cambisols.*

*Keywords: land use, physical characteristic, chemical characteristic, mineral characteristic*