

## INTISARI

Penelitian ini bertujuan untuk mengidentifikasi bagian bagian lereng, batuan penyusun tanah, mengamati karakteristik sifat fisika dan kimia tanah dengan menghubungkan antara mineralogi batuan induk, bahan induk tanah, dan tanah yang berada pada berbagai lereng, serta menganalisis tingkat perkembangan dan klasifikasi tanah pada Perbukitan Jiwo Barat, Klaten. Pengambilan sampel dilakukan pada 6 titik yang berada diatas batuan Sekis Mika, Batu Lempung, Sekis Hijau dan Fillit. Analisis sampel ini meliputi analisis fisika, kimia, dan mineralogi yang dilaksanakan di Laboratorium Fisika Tanah, Kimia dan Kesuburan Tanah, Departemen Tanah, Fakultas Pertanian Universitas Gadjah Mada. Parameter penelitian yang dianalisis meliputi berat volume, berat jenis, porositas, tekstur, permeabilitas, pH H<sub>2</sub>O, pH KCl, penetapan kation tersedia, kapasitas pertukaran kation, bahan organik, kejenuhan basa, nitrogen total, dan mineral tanah. Hasil penelitian menunjukkan tanah-tanah yang berkembang di lokasi Perbukitan Jiwo mempunyai perbedaan karakteristik, genesis dan klasifikasinya. Klasifikasi tanah menurut soil taxonomy pada stopsite profil Mika 1, stopsite profil Fillit 1 dan 2 berkembang tanah Typic Eutrudepts, klasifikasi tanah pada stopsite profil Mika 2, stopsite profil Clay stone, dan stopsite profil klorit berkembang tanah Typic Dystrudepts

Kata kunci: bahan induk, genesis tanah, perkembangan tanah, Jiwo Barat, Klaten.

## ABSTRACT

This study aims to identify parts of the slope, rock forming soil, to observe the physical and chemical characteristics of the soil by connecting between the mineralogy of rock, soil parent material, and soil located on various slopes, and to analyze the level of development and classification of soil at the West Jiwo Hills , Klaten. Sampling was carried out at 6 points above the rocks of Schist Mica, Clay Stone, Schist Green and Fillit. This sample analysis includes physical, chemical and mineralogical analysis carried out in Laboratory of Soil Physics, Chemistry and Soil Fertility, Soil Departement, Faculty of Agriculture, Universitas Gadjah Mada. The research parameters analyzed included bulk density, particle density, porosity, texture, permeability, pH measured by solvents H<sub>2</sub>O and KCl, available cation determination, cation exchange capacity, organic matter, base saturation, total nitrogen, and minerals of soil. The results showed that the lands developed at the Jiwo Hills have different characteristics, genesis and classification. According to soil taxonomy, a proper soil classification for soil profile of stopsite of Mika 1, Fillit 1 and 2 is Typic Eutrudepts, while for soil profile of stopsite of Mika 2, Clay stone and Chlorite is Typic Dystrudepts.

Keywords: parent materials, soil genesis, soil development, West Jiwo, Klaten