# INTISARI

Penelitian yang berjudul Analisis Potensi Tanah Lempung Untuk Genting dan Batu-bata Perbukitan di Wilayah Kecamatan Godean dan Seyegan ini bertujuan untuk menganalisis tekstur tanah lempung, tipe lempung dan potensi tanah lempung perbukitan di wilayah Kecamatan Godean dan Seyegan untuk pembuatan genting dan batu-bata.

Sampel tanah diambil dengan metode purposive sampling. Sampel diambil pada lereng atas, lereng tengah dan lereng bawah perbukitan atau lokasi-lokasi penambangan tanah lempung di perbukitan wilayah Kecamatan Godean dan Seyegan sebanyak 18 titik sampel. Sampel dibawa ke Laboratorium Tanah Fakultas Geografi UGM untuk analisis tekstur dan untuk pemipetan fraksi lempung yang akan dianalisis di Laboratorium Pusat Geologi Fakultas Teknik UGM. Hasil Laboratorium yang berupa grafik, format jpg, tabel excell dan txt (notepad) dianalisis dengan Table of Key Lines in X-ray Powder Diffraction Patterns of Mineral in Clays and Associated Rocks (Pei-Yuan Chen).

Hasil penelitian menunjukkan bahwa: (1). hasil analisis tekstur tanah, kelas tekstur tanah lempung di daerah penelitian yang sesuai untuk bahan baku pembuatan genting dan batu bata hanya 2 sampel (11,11 %) yang merupakan geluh lempungan (2). hasil analisis tanah lempung dengan X-Ray Difraction dengan metode bulk powder analysis dan metode Separated Clay Analysis baik dengan metode clay air dried analysis maupun clay ethylen glycol analysis yang sesuai untuk genting dan batu bata hanya 1 sampel (5,56%) yang merupakan tipe lempung illite-micas (3). hasil penghitungan potensi volume tanah lempung untuk berbagai tipe pada bukit Wungkal, Gayamsari dan Jering adalah sebesar 2.658.938,19 $m^3$, namun yang berupa tipe lempung yang sesuai untuk genting dan batu batu yaitu illite-micas volumenya sebesar 139.494 $m^3$. Berdasarkan ketiga analisis tersebut dapat disimpul bahwa tanah lempung Perbukitan di wilayah Kecamatan Godean dan Seyegan sebagian besar kurang sesuai digunakan untuk bahan baku pembuatan genting dan batu-bata.

**Kata Kunci: potensi, tekstur tanah lempung dan tipe lempung**

# ABSTRACT

The study, entitled "Potential Analysis of Soil Clays for Roof and Bricks in Seyegan and Godean Hills" aims to analyze the texture of clay, the type of clay, and the potential of clay in Seyegan and Godean Hills for the manufacture of roof and bricks.

The soil sample was taken using purposive sampling method. Samples were taken from the upper, middle, and lower slopes of the hills or the locations of the clay mining in the hilly regions of Seyegan and Godean. The samples took 18 sample points. The soil samples were then taken to the Soil Laboratory of the Faculty of Geography of Gadjah Mada University to be analyzed the soil texture, while the pipetting clay fraction was analyzed at the Central Laboratory of Geology Faculty of Engineering. The laboratory results were in the form of graphs, jpg format, excel tables and txt (notepad) and were analyzed using Table Key Lines in X-ray Powder Diffraction Patterns of Mineral in Clays and Associated Rocks (Pei-Yuan Chen).

The analysis results show that: (1) the soil texture and the clay class in the area of research which are suitable for raw material for making roof and bricks are only 2 samples (11.11%) in the form of silty loam, (2) clay analysis result using X-Ray Diffraction with bulk powder analysis and Separated Clay analysis methods, either using clay air dried analysis method or clay ethylen glycol analysis, finds only 1 sample (5.56%) in the form of illite-micas clay which is suitable for making roof and bricks, (3) the result of calculation of the potential volume for various types of clay on Wungkal, Gayamsari, and Jering hills is 2,658,938.19 meter cubed, but the volume contained illite micas which is suitable for roof and bricks is only 139,494.0 meter cubed. Based on the three analyses, it can be concluded that the clay hills in the regions of Seyegan and Godean are less suitable as raw material for the manufacture of roof and bricks.

**Keynotes: potential, soil texture and type of clay loam**