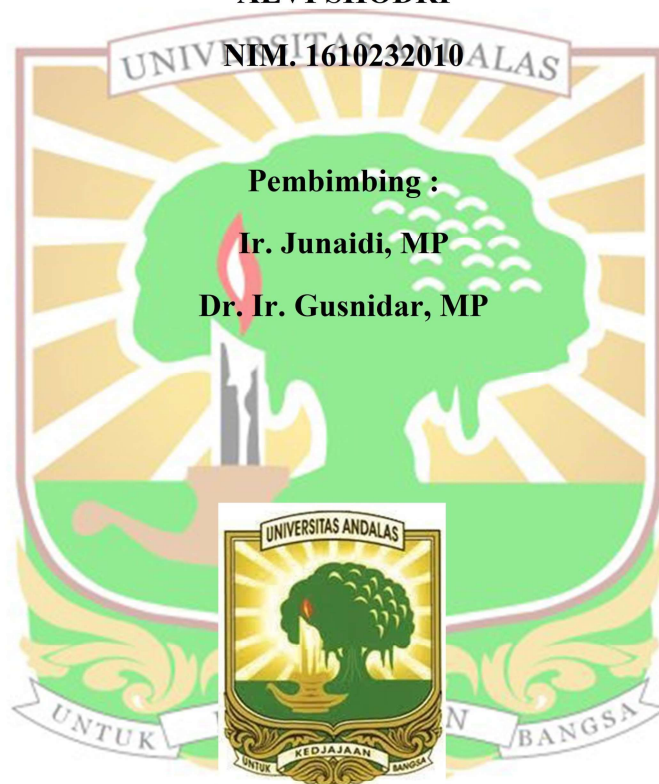


**KAJIAN BEBERAPA SIFAT FISIKA TANAH DARI SISTEM  
AGROFORESTRI PADA BEBERAPA KEMIRINGAN  
LERENG DI DAERAH UTARA KAKI GUNUNG TALANG  
SUMATRA BARAT**

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PADANG  
2023**

# KAJIAN BEBERAPA SIFAT FISIKA TANAH DARI SISTEM AGROFORESTRI PADA BEBERAPA KEMIRINGAN LERENG DI DAERAH UTARA KAKI GUNUNG TALANG SUMATRA BARAT

## Abstrak

Perbedaan kemiringan lereng pada suatu bentang lahan mempengaruhi sifat fisika tanah di lahan agroforestri. Penelitian bertujuan mengetahui pengaruh yang disebabkan kemiringan lereng yang berbeda terhadap beberapa sifat fisika tanah pada sistem pertanaman agroforestri di daerah utara kaki Gunung Talang. Penelitian ini dilakukan dengan metode survey, pengambilan sampel tanah dilakukan dengan cara purposive random sampling pada lahan pertanian yang menerapkan sistem agroforestri di kemiringan lereng >45%, 25-45%, 15-25%, dan 8-15% serta hutan sebagai kontrol. Hasil analisis sifat fisika tanah di laboratorium dinilai berdasarkan kriteria sifat fisika tanah. Hasil penelitian menunjukkan tekstur tanah yang dominan adalah lempung, lempung berliat hingga lempung berpasir. Kandungan bahan organik rendah, nilai BV cenderung rendah dan sebaliknya nilai TRP cenderung tinggi. Permeabilitas termasuk cepat dan sangat cepat, serta nilai N Total yang cenderung tinggi. Berdasarkan hal tersebut, disarankan perlu penambahan bahan organik ke tanah serta tetap menerapkan sistem agroforestri dengan tetap memperhatikan kaidah konservasi alam

Kata Kunci : Agroforestri , Gunung Talang, Kemiringan Lereng, Sifat Fisika Tanah.

# **STUDY OF SEVERAL PHYSICAL PROPERTIES OF SOILS IN AGROFORESTRY SYSTEMS AT VARIOUS SLOPE INCLINATIONS IN THE NORTHERN REGION OF MOUNT TALANG, WEST SUMATRA**

## **Abstrak**

The differences in slope inclination in a land area affect the physical properties of the soil in agroforestry lands. The research aims to determine the influence caused by varying slope inclinations on several physical properties of the soil in agroforestry planting systems in the northern region of Mount Talang. This study was conducted using a survey method, and soil samples were taken using purposive random sampling from agricultural lands implementing agroforestry systems with slope inclinations of >45%, 25-45%, 15-25%, and 8-15%, with a forest area as the control. The laboratory analysis results were evaluated based on certain criteria for physical properties. The research findings indicate that the dominant soil texture ranges from clay to sandy clay loam. The organic matter content is low, with BV (base saturation) values tending to be low, while TRP (total retention of phosphorus) values tend to be high. Permeability is classified as rapid and very rapid, with a tendency for high Total Nitrogen (N Total) values. Based on these findings, it is recommended to add organic matter to the soil while still implementing the agroforestry system and paying attention to natural conservation aspects.

**Keywords:** Agroforestry, Mount Talang, Slope Inclination, Soil Physical Properties