

## Intisari

Penelitian yang dilaksanakan bertujuan untuk mengetahui nilai infiltrasi, baik itu kapasitas dan laju infiltrasi pada suatu lahan. Secara lebih lanjut nilai infiltrasi yang diperoleh dapat dilihat hubungannya dengan karakteristik sifat fisika dan kimia tanah pada berbagai penggunaan lahan dan kemiringan lereng yang ada di Kecamatan Cangkringan, Kabupaten Sleman, Daerah Istimewa Yogyakarta. Metode yang digunakan dalam penelitian ini meliputi, survei lapangan dengan metode *proportional sampling*, analisis data lapangan dengan metode *single ring infiltrometer*, analisis data laboratorium menggunakan sampel kedalaman 0-20 cm dan 20-40 cm. Karakteristik sifat fisika dan kimia yang diamati antara lain, kadar lengas, berat volume, berat jenis, porositas, tekstur, bahan organik, sebaran pori, dan kapasitas lapang. Rancangan statistika yang digunakan dalam analisis adalah rancangan bersarang (*nested design*) dan analisis regresi. Hasil yang diperoleh menunjukkan bahwa terdapat pengaruh antara kemiringan lereng dan penggunaan lahan terhadap infiltrasi.

Kata kunci: kapasitas infiltrasi, laju infiltrasi, penggunaan lahan, kemiringan lereng

### **Abstract**

The research carried out to determine the infiltration value, both capacity and infiltration rate on a land. Furthermore, the infiltration values obtained can be seen in relation to the physical and chemical characteristics of the soil in various land uses and slopes in Cangkringan District, Sleman Regency, Special Region of Yogyakarta. The methods that were used in this research including proportional random sampling methods that was used for field survey, single ring infiltrometer methods was used for field data analysis, 0-20 cm and 20-40 cm depths samples was used for laboratory data analysis. The physical and chemical characteristics that were observed including moisture content, bulk density, particle density, porosity, soil texture, soil organic matter, pore distribution and field capacity. The statistical design that used in the analysis was a nested design and regression analysis. The results that was obtained show that there was an influence between slope and land use on infiltration.

**Keywords:** infiltration capacity, infiltration rate, land use, slope