

KAJIAN BEBERAPA SIFAT FISIK TANAH PADA MIKRO TOPOSEKUEN KARST GUNUNGKIDUL

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ABSTRAK

Desa Pacarejo, Kecamatan Semanu, Kabupaten Gunungkidul terletak di kawasan karst Gunungkidul yang memiliki karakteristik tanah yang unik akibat proses karstifikasi. Penelitian ini bertujuan untuk mengetahui beberapa sifat fisik tanah pada mikro toposekuen karst di Desa Pacarejo. Metode yang digunakan adalah survei kuantitatif dengan pengambilan sampel tanah secara *purposive sampling*. Sampel tanah diambil dari beberapa titik pada mikro toposekuen karst yaitu pada bagian puncak, lereng, dan dolina. Hasil penelitian menunjukkan tekstur bagian puncak dan lereng geluh lempungan (*clay loam*) dan bagian dolina lempung (*clay*). Struktur tanah di bagian puncak remah sedangkan bagian lereng dan dolina gumpal. Warna mulai dari 2,5 YR 2,5/2 (*very dusky red*) hingga 7,5 YR 3/4 (*dark brown*). Rata-rata berat volume tertinggi sebesar 1,65 g/cm³ dan berat jenis tertinggi sebesar 1,92 g/cm³ pada puncak bukit pertama. Porositas memiliki harkat sangat jelek pada setiap bentuk lahan. Konsistensi memiliki Batas Cair tertinggi 49,12% pada dolina, Batas Lekat tertinggi 43,59% dan Batas Berubah Warna tertinggi 8,64% pada lereng bukit pertama, serta Batas Gulung tertinggi 35,9% pada puncak bukit pertama. Nilai COLE tertinggi sebesar 0,07 pada dolina, dan rata-rata C-Organik tertinggi sebesar 3,49% pada puncak bukit kedua.

Kata kunci: Desa Pacarejo, mikro toposekuen karst, sifat fisik tanah

A STUDY OF SEVERAL PHYSICAL PROPERTIES OF SOIL ON THE KARST MICRO TOPOSEQUENT IN GUNUNGKIDUL

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ABSTRACT

Pacarejo Village, Semanu Subdistrict, Gunungkidul Regency is located in the karst area of Gunungkidul which has unique soil characteristics due to the karstification process. This study aims to determine some soil physical properties in karst micro toposequences in Pacarejo Village. The method used was quantitative survey with purposive sampling of soil. Soil samples were taken from several points on the karst micro toposequence, namely at the peak, slope, and dolina. The results showed that the texture of the peaks and slopes was clay loam and the dolina was clay. The soil structure at the top is crumbly while the slopes and dolina are cloddy. Color ranges from 2.5 YR 2.5/2 (very dusky red) to 7.5 YR 3/4 (dark brown). The highest average volume weight is 1.65 g/cm³ and the highest specific gravity is 1.92 g/cm³ on the first hilltop. Porosity has a very poor rating on each landform. Consistency has the highest Liquid Limit of 49.12% on the dolina, the highest Sticky Limit of 43.59% and the highest Color Change Limit of 8.64% on the first hill slope, and the highest Roll Limit of 35.9% on the first hilltop. The highest COLE value was 0.07 on dolina, and the highest average C-Organic was 3.49% on the second hilltop.

Keywords: *soil physical properties, micro-toposequence, karst, Pacarejo Village*