



Intisari

Penelitian ini bertujuan untuk mengetahui sifat fisika, kimia dan genesis tanah yang berada di katena selatan Gunung Ungaran, Semarang, Jawa Tengah. Pengambilan sampel dilakukan pada 7 profil tanah terpilih dengan kriteria perbedaan batuan yaitu Gunungapi Sumbing (Qls), Gunungapi Gajah Mungkur (Qhg), Formasi Kaligetas (Qpkg), Gunungapi Blalak (Qbl) beserta peralihannya dan topografi dengan ketinggian 1400 – 500 mdpl. Analisis sampel ini meliputi analisis fisika, kimia yang dilaksanakan di Laboratorium Fisika Tanah, Kimia dan Kesuburan Tanah. Parameter Fisika Tanah meliputi analisis BV, BJ, Porositas dan Tekstur Tanah. Sedangkan untuk parameter Kimia Tanah meliputi parameter pH, kapasitas pertukaran kation, kandungan bahan organik, kejenuhan basa, kandungan fosfor dan reaktifitas fluorida. Pada analisis morfologi tanah meliputi deskripsi tapak dan pengamatan profil tanah. Hasil penelitian menunjukkan bahwa faktor yang mempengaruhi tingkat perkembangan tanah di katena selatan Gunung Ungaran yaitu topografi. Pada ketinggian 1400 sampai 1080 mdpl terbentuk tanah Andisol. Kemudian pada ketinggian 1044 mdpl terbentuk tanah Inceptisol. Sedangkan pada ketinggian 902 sampai 551 mdpl terbentuk tanah Alfisol. Perbedaan pembentukan tanah di katena Selatan Gunung Ungaran di pengaruhi oleh perbedaan suhu, temperatur dan aliran air sehingga proses pelapukan batuan, pembentukan mineral lempung, akumulasi klei dan kadar bahan organik berbeda.

Kata kunci : Batuan, Topografi, Akumulasi Klei, Genesis Tanah, Sifat Fisika dan Sifat Kimia



Abstract

This study was aimed to determine the soil physics, chemistry, mineralogy and genesis of soil located in southern catena of Ungaran Mountain, Kab Semarang, Central Java. The sample was taken at from seven selected profile with different geology formation there were Gunungapi Sumbing (Qls), Gunungapi Gajah Mungkur (Qhg), Formasi Kaligetas (Qpkg), Gunungapi Blalak (Qbl) with their transition and at an elevation range of 1400 – 500 m above sea level. The analyzed were analysing in the soil physics laboratory and chemistry and soil fertility Laboratory. For the physical parameters are includer analysing of BV, BJ, porosity and soil texture. And for the soil chemical parameters include for pH, cation exchange capacity (CEC), soil organic matter content, base saturation, content of phosphorus and fluorida reactivity. In soil morphology analysing including site description and observation of soil profile. The results showed that the factors that influence the rate of development of soil in southern catena of Ungaran Mountain are topography. At 1400 to 1080 m above sea level, can be formed Andisol. At 1044 m asl can be formed Inceptisol. Then at 902 to 551 m asl can be formed Alfisol. Differences in soil formation at southern catena of Ungaran Mountain are affected by temperature and water flow so that weathering rocks process, clay mineral formation, clay accumulation and organic matter content are different.

Keyword : rock, topography, clay accumulation, soil genesis, soil physical and chemical characteristic.