KAJIAN SIFAT KIMIA TANAH INCEPTISOL PADA PENGGUNAAN LAHAN DAN KEMIRINGAN LERENG YANG BERBEDA DI KALURAHAN SRIMULYO KAPANEWON PIYUNGAN KABUPATEN BANTUL

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ABSTRAK

Inceptisol memiliki potensi besar sebagai lahan pertanian, namun karakteristik kimianya dipengaruhi oleh penggunaan lahan dan kemiringan lereng, namun informasi terkait hal tersebut di beberapa wilayah masih terbatas. Penelitian ini bertujuan untuk mengkaji sifat kimia tanah Inceptisol di Kalurahan Srimulyo, Kabupaten Bantul, dengan fokus pada variasi penggunaan lahan (sawah, hutan, dan kebun) serta kelas kemiringan lereng (datar, landai, agak curam, dan curam). Penelitian dilakukan menggunakan metode survei dengan 13 titik sampel yang ditentukan berdasarkan kombinasi penggunaan lahan dan kemiringan lereng. Parameter kimia tanah yang dianalisis meliputi pH, C-organik, N-total, P-tersedia, K-tersedia, dan Kapasitas Pertukaran Kation (KPK). Hasil penelitian menunjukkan bahwa pH tanah berada pada kisaran 5–6,12 (masam–agak masam), KPK berkisar antara 26,41–46,83 cmol(+)/kg (tinggi–sangat tinggi), N-total 0,05–0,28% (sangat rendah–rendah), P-tersedia 5,8–22 ppm (sangat rendah–rendah), K-tersedia 0,01–0,12 me% (sangat rendah–rendah), dan C-organik 0,45–4,88% (rendah–tinggi). Penggunaan lahan mempunyai kecenderungna lebih mempengaruhi sifat kimia tanah dibandingkan dengan kemiringan lahan.

Kata Kunci: Tanah Inceptisol, Kesuburan Tanah, Sifat Kimia Tanah

STUDY OF CHEMICAL PROPERTIES OF INCEPTISOL SOIL ON DIFFERENT LAND USE AND SLOPE GRADIENTS IN SRIMULYO VILLAGE, PIYUNGAN DISTRICT, BANTUL REGENCY

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ABSTRACT

Inceptisols have considerable potential for agricultural development; however, their chemical characteristics are strongly influenced by land use and slope gradient, while information regarding these effects in certain regions remains limited. This study aimed to assess the chemical properties of Inceptisol soils in Srimulyo village, Bantul Regency, with particular emphasis on variations in land use (paddy fields, forest, and mixed garden) and slope classes (flat, gently sloping, moderately steep, and steep). The research was conducted using a survey method with 13 sampling points determined based on combinations of land use and slope gradient. The analyzed soil chemical parameters included soil pH, organic carbon (C-organic), total nitrogen (N-total), available phosphorus (P-available), available potassium (K-available), and cation exchange capacity (CEC). The results showed that soil pH ranged from 5.00 to 6.12 (acidic to slightly acidic), CEC ranged from 26.41 to 46.83 cmol(+)/kg (high to very high), total nitrogen from 0.05 to 0.28% (very low to low), available phosphorus from 5.8 to 22 ppm (very low to low), available potassium from 0.01 to 0.12 me% (very low to low), and organic carbon from 0.45 to 4.88% (low to high). Overall, land use tended to have a greater influence on soil chemical properties than slope gradient.

Keywords: Inceptisol soil, soil fertility, soil chemical propertis