

STATUS KALIUM TANAH PADA LAHAN LERENG PERBUKITAN KARST DI KALURAHAN PACAREJO, SEMANU, GUNUNGKIDUL, D.I YOGYAKARTA

Oleh: Nesha Adinda Putri Pratekno

Dibimbing oleh: Ali Munawar

ABSTRAK

Kalurahan Pacarejo merupakan daerah yang termasuk ke dalam kawasan karst. Kondisi di kawasan karst dari sisi pertanian memiliki kekurangan dari sulitnya air permukaan hingga miskinnya unsur hara Kalium (K) tanah (Kusumayudha, 2018). Penelitian ini bertujuan untuk mengetahui pengaruh lokasi pada perbukitan karst terhadap status kalium tanah di hutan jati. Penelitian ini dilakukan pada bulan April 2025 – Juni 2025 dengan menggunakan metode survei. Pengambilan sampel tanah dilakukan di hutan jati pada kawasan karst. Metode penelitian menggunakan metode *purposive sampling* berdasarkan pada 3 lokasi dengan elevasi 151-160, 161-170, dan 171-180 mdpl. Pengambilan 9 sampel tanah komposit pada lapisan atas 0-20 cm di elevasi berbeda. Parameter tanah yang dianalisis yaitu K-total, K-tersedia, KPK, pH, C-organik, dan tekstur. Pada setiap elevasi juga dilakukan pengamatan vegetasi meliputi jumlah dan diameter pohon jati, bobot massa seresah tanaman, serta kandungan K dalam jaringan seresah tanaman. Hasil penelitian menunjukkan bahwa kadar K-total meningkat seiring kenaikan elevasi. Secara umum, status K-total tanah tergolong sangat tinggi pada elevasi 171–180 mdpl dengan nilai 66,20 mg/100 g, serta tinggi pada elevasi 151–160 mdpl dan 161–170 mdpl dengan nilai masing-masing 48,76 mg/100 g dan 47,38 mg/100 g. Sementara itu, status kalium tersedia secara umum tergolong rendah di seluruh elevasi, dengan nilai pada elevasi 151–160 mdpl dan 171–180 mdpl sebesar 0,27 me/100 g, serta pada elevasi 161–170 mdpl sebesar 0,22 me/100g.

Kata Kunci: perbukitan, kalium tanah, kawasan karst, seresah tanaman

***SOIL POTASSIUM STATUS ON KARST HILLSLOPE LAND IN
PACAREJO VILLAGE, SEMANU, GUNUNGKIDUL, D.I
YOGYAKARTA***

By: Nesha Adinda Putri Pratekno
Supervised By: Ali Munawar

ABSTRACT

Pacarejo Village is an area included in the karst area. Conditions in the karst area from an agricultural perspective have shortcomings ranging from the difficulty of surface water to the lack of soil potassium (K) nutrients (Kusumayudha, 2018). This study aims to determine the effect of location on karst hills on the status of soil potassium in teak forests. This study was conducted from April 2025 to June 2025 using a survey method. Soil sampling was carried out in teak forests in the karst area. The research method used a purposive sampling method based on 3 locations with elevations of 151-160, 161-170, and 171-180 masl. Nine composite soil samples were taken in the top layer 0-20 cm at different elevations. The soil parameters analyzed were total K, available K, KPK, pH, organic C, and texture. Vegetation observations were also conducted at each elevation, including the number and diameter of teak trees, the weight of plant litter mass, and the K content in plant litter tissue. The results showed that total K levels increased with increasing elevation. In general, the total K status of the soil was classified as very high at elevations of 171–180 masl with a value of 66.20 mg/100 g, and high at elevations of 151–160 masl and 161–170 masl with values of 48.76 mg/100 g and 47.38 mg/100 g, respectively. Meanwhile, the status of available potassium was generally low at all elevations, with values at elevations of 151–160 masl and 171–180 masl of 0.27 me/100 g, and at elevations of 161–170 masl of 0.22 me/100 g.

Keywords: hills, soil potassium, karst areas, plant litter