KAJIAN STATUS KESUBURAN KIMIA TANAH SAWAH BERDASARKAN TOPOSEKUEN KECAMATAN PAUH KOTA PADANG

SKRIPSI

Oleh:

AMI RAHMIA YUNIARTI
NIM.2110232011

DOSEN PEMBIMBING

1. **Prof. Dr. Ir. Azwar Rasyidin, M.Sc**
2. **Prof. Dr. Ir. Yulnafatmawita, M.Sc**

FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG

2025

KAJIAN STATUS KESUBURAN KIMIA TANAH SAWAH BERDASARKAN TOPOSEKUEN KECAMATAN PAUH KOTA PADANG

ABSTRAK

Kesuburan tanah merupakan salah satu faktor kunci dalam menentukan produktivitas lahan pertanian, khususnya pada lahan sawah. Penelitian ini bertujuan untuk mengidentifikasi sifat kimia tanah sawah dan menilai status kesuburan kimia tanah sawah berdasarkan toposekuen di Kecamatan Pauh Kota Padang. Metode yang digunakan dalam penelitian ini adalah metode survei, sampel tanah diambil dengan metode *Stratified Sampling* berdasarkan 3 elevasi yang berbeda (202,01 m d.p.l., 119,91 m d.p.l., dan 75,16 m d.p.l.). Jenis sampel yang diambil pada tiap elevasi adalah sampel tanah utuh dan sampel tanah terganggu pada kedalaman 0-20 cm dengan 3 ulangan. Hasil penelitian yang diperoleh yaitu nilai pH (5,01-5,85) berkriteria masam, C-organik berkriteria sedang, KTK sedang, Ca rendah, Mg tinggi, K rendah, Na rendah, KB rendah, S sedang, BV sedang, untuk semua elevasi atas, tengah, dan bawah. Sedangkan N-total berkriteria sedang-rendah-sedang, P-tersedia berkriteria rendah-rendah-sedang, silika memiliki nilai 9,99%-10,86%-6,34%, untuk elevasi atas, tengah, dan bawah secara berturut-turut. Status kesuburan tanah ketiga sekuen topografi di Kecamatan Pauh berkriteria rendah, dengan cadangan hara paling sedikit adalah P_2O_5. Kesuburan tanah yang rendah ini dapat ditingkatkan dengan cara pengembalian bahan organik ke dalam tanah, pemupukan sesuai kebutuhan tanaman, dan memastikan sistem irigasi yang baik.

Kata kunci: elevasi, Kecamatan Pauh, kesuburan tanah, sawah, toposekuen

STUDY ON SOIL CHEMICAL FERTILITY OF RICE FIELD BASED ON SEQUENT TOPOGRAPHY IN PAUH DISTRICT, PADANG CITY

ABSTRACT

Soil fertility is one of the key factors in determining the productivity of agricultural land, especially in rice fields. This study was aimed to identify the chemical properties of rice field and to assess the chemical fertility status of rice field based on the sequence topography in *Pauh* District, *Padang City*. The method used in this study was a survey method, soil samples were taken using the Stratified Sampling method based on 3 different elevations (202.01 m *asl.*, 119.91 m *asl.*, and 75.16 m *asl.*). The types of samples taken at each elevation were undisturbed and disturbed soil samples at 0-20 cm soil depth with 3 replications. The results showed that the soil pH (5.01-5.85) was acid, organic C was medium, CEC was medium, Ca was low, Mg was high, K was low, Na was low, KB was low, S was medium, BD was medium, for all elevations. Meanwhile, N-total had medium-low-medium criteria, P-available had low-low-medium criteria, silica had 9.99%-10.86%-6.34%, for the upper, middle, and lower elevation, respectively. The soil fertility status of the three topographic sequences in Pauh District was low, and the lowest nutrient reserve was P_2O_5. This low soil fertility can be increased by returning organic matter to the soil, fertilizing according to plant needs, and ensuring a good irrigation system.

Keywords: elevation, Kecamatan Pauh, rice field, soil fertility, topo-sequent