

ANALISIS INDEKS KUALITAS TANAH PERTANIAN BERDASARKAN VARIASI JARAK DARI GARIS PANTAI DI PESISIR PANDANSIMO BANTUL

Oleh: Anggi Styaningrum
Dibimbing Oleh: Eko Amiadji Julianto

ABSTRAK

Kawasan pesisir Pandansimo memiliki kondisi tanah yang dipengaruhi oleh kedekatannya dengan garis pantai, terutama terkait salinitas dan perubahan karakter fisik maupun kimia tanah. Variasi jarak dari garis pantai menyebabkan perbedaan tingkat kualitas tanah yang berdampak pada pertumbuhan tanaman padi di lahan pesisir. Penelitian ini bertujuan untuk mengetahui kualitas tanah pada jarak 200 meter, 400 meter, dan 600 meter dari garis pantai berdasarkan parameter fisik (tekstur, berat volume, porositas, dan kadar debu lempung), dan kimia (pH, kadar nitrogen (N), fosfor (P), kalium (K), C-Organik, daya hantar Listrik (DHL) dan kejenuhan basa (KB)). Penentuan lokasi penelitian menggunakan metode survei untuk mengetahui kondisi lingkungan di sekitar lokasi penelitian. Pengambilan sampel dilakukan dengan metode *purposive sampling*. Pengambilan sampel dilakukan pada 3 (tiga) lokasi berbeda dengan jumlah pengambilan titik sampel pada setiap lokasi yaitu 5 (lima) sampel dengan menggunakan teknik sampel tanah komposit secara *zigzag*. Penentuan Indeks Kualitas Tanah (IKT) ditentukan dengan menggunakan metode Mausbach & Seybold. Hasil penelitian menunjukkan nilai indeks kualitas tanah pada lokasi 1 yaitu 0,272 dengan kategori rendah, lokasi 2 yaitu 0,517 dengan kategori sedang, dan lokasi 3 yaitu 0,633 dengan kategori baik. Faktor pembatas pada kualitas tanah yaitu DHL, pH, N-tersedia, K-tertukar, Kejenuhan Basa, dan C-organik.

Kata Kunci: Indeks kualitas tanah, Pesisir, Salinitas

ANALYSIS OF AGRICULTURAL SOIL QUALITY INDEX BASED ON VARIATIONS IN DISTANCE FROM THE COASTLINE IN THE PANDANSIMO COASTAL AREA OF BANTUL

By: Anggi Styaningrum
Supervised by: Eko Amiadji Julianto

ABSTRACT

The Pandansimo coastal area has soil conditions that are influenced by its proximity to the coastline, particularly in terms of salinity and changes in the physical and chemical characteristics of the soil. Variations in distance from the coastline cause differences in soil quality, which in turn affect the growth of rice crops in coastal areas. This study aims to determine soil quality at distances of 200 meters, 400 meters, and 600 meters from the coastline based on physical parameters (texture, bulk density, porosity, and clay content) and chemical parameters (pH, nitrogen (N), phosphorus (P), potassium (K), C-Organic, electrical conductivity (EC), and base saturation (BS)). The research location was determined using a survey method to identify the environmental conditions around the research site. Sampling was conducted using purposive sampling. Sampling was carried out at three different locations with five samples taken at each location using the zigzag composite soil sampling technique. The Soil Quality Index (SQI) was determined using the Mausbach & Seybold method. The results showed that the soil quality index value at location 1 was 0.272, categorized as low; location 2 was 0.517, categorized as moderate; and location 3 was 0.633, categorized as good. The limiting factors in soil quality were EC, pH, available N, exchangeable K, base saturation, and organic C.

Keywords: Soil quality index, Coastal, Salinity