

INTISARI

Erosi tanah merupakan masalah lingkungan yang *crusial* karena secara signifikan dapat mengurangi produktivitas lahan pertanian. Kajian kepekaan tanah terhadap erosi (Erodibilitas) di daerah pertanian lahan kering Nawungan penting untuk dilakukan agar keberlanjutan produktivitas lahan pertanian Nawungan yang sudah baik dapat terjaga. Kajian ini juga dirasa penting karena Nawungan memiliki topografi lahan kering berlereng. Kemiringan lereng merupakan faktor yang mempengaruhi indeks erodibilitas dan dapat mempengaruhi produktivitas suatu lahan. Oleh karena itu, penelitian ini bertujuan untuk menganalisis indeks erodibilitas pada setiap lereng yang berbeda dan mengevaluasi pengaruh erodibilitas terhadap potensi produktivitas lahan pertanian ditinjau dari kesuburan tanah di lokasi penelitian. Analisis data dilakukan secara kuantitatif dan kualitatif. Pengukuran lapangan dan uji laboratorium dilakukan untuk mengumpulkan data bentang lahan dan data tanah. Pengukuran kualitatif potensi kesuburan tanah menggunakan Perangkat Uji Tanah Kering (PUTK) dilakukan untuk mengukur seberapa besar dampak erosi terhadap kesuburan tanah. Pengolahan data dengan metode regresi *Stepwise* dilakukan untuk mengetahui faktor-faktor yang paling mempengaruhi indeks erodibilitas di lokasi pertanian, dan dilakukan analisis tabulasi silang antara indeks erodibilitas dan tingkat kesuburan tanah. Hasil penelitian menunjukkan bahwa tingkat erodibilitas di lokasi penelitian berada pada kelas sedang dengan indeks erodibilitas pada kelas lereng sangat landai antara 0,17-0,33, pada kelas lereng landai 0,08-0,16, pada kelas lereng agak curam antara 0,21-0,24, pada kelas lereng curam berkisar antara 0,12-0,61. Faktor-faktor yang paling mempengaruhi indeks erodibilitas di lokasi penelitian adalah % Debu, % Lempung, Bahan Organik, dan Permeabilitas. Tutupan lahan dan posisi lereng terlihat tidak mempengaruhi indeks erodibilitas di lokasi penelitian. Berdasarkan penilaian kualitatif kesuburan tanah, potensi produksi lahan pertanian di wilayah penelitian berada pada kategori rendah

Kata kunci: erodibilitas tanah, lereng, karakteristik tanah, potensi produksi.

ABSTRACT

Soil erosion is a crucial environmental problem because it can significantly reduce the productivity of agricultural land. It is important to study the sensitivity of soil to erosion (Erodibility) in the Nawungan dryland agricultural area so that the sustainability of the Nawungan agricultural land that already has good productivity can be maintained. This study is also considered important because Nawungan has a sloping topography. Slope is a factor that influences the erodibility index and can affect land productivity. Therefore, this study aims to analyze the erodibility index at each different slope and to evaluate the effect of erodibility on the potential productivity of agricultural land in terms of soil fertility at the research location. Data analysis was carried out quantitatively and qualitatively. Field measurements and laboratory tests were carried out to collect landscape characteristics and soil data. Qualitative measurements of potential soil fertility using the Dry Soil Test Kit (DSTK) are used to measure how big the impact of erosion is on soil fertility. Data processing using the Stepwise-Regression method was carried out to determine the factors that most influence the erodibility index at the research location, and crosstabulation analysis was carried out on erodibility and soil fertility levels. The results showed that the erodibility level at the research location was mostly moderate with the erodibility index in the very gentle slope ranging between 0.17-0.33, in the gentle slope ranging between 0.08-0.16, in the slightly steep slope class ranging between 0.21-0.24, in the steep slope class it ranges from 0.12-0.61. The factors that most influence the erodibility index at the research location is % Dust, % Clay, Organic Material, and Permeability. Land cover and slope position does not seem affect the erodibility index at the research location. Based on a qualitative assessment of soil fertility, the productivity potential of agricultural land in the study area is in the low category.

Keywords: soil erodibility, slope, soil properties, productivity potential