

ABSTRACT

Duku (*Lansium domesticum* Corr.) is a tropical fruit that is in great demand by the public. The high utilization of duku makes it a fruit that has high commercial value. Sawang sub-district is the third largest duku-producing sub-district in North Aceh district in 2021 and 2022 after Cot Girek and Paya Bakong sub-districts. Land evaluation needs to be done to encourage development and increase duku production in Sawang sub-district. The purpose of the study was to determine the level of land suitability for duku plants in Sawang sub-district. The research was used a descriptive survey method by overlaying soil type maps, land use maps and slope maps to obtain a Land Map Unit (LMU). Ten soil samples were taken from ten LMU to analyze physical and chemical properties. The results showed an average temperature of 27.28°C, rainfall of 1,508 mm/year, drainage classified as good to slightly obstructed. Soil depth in the field (<75 - >100cm), slope with a value 4-36%. Erosion is classified as very light, medium and heavy. Soil texture consists of clay, silty clay, loam, clay loam, sandy clay loam, sandy loam, silt loam. Assistance on the surface and rock outcrops are classified as <5 - 15%. Cation exchange capacity (CEC) classified as low to high. pH is classified as acidic to neutral. Organik-C is classified as very low to high. Base saturation (BS) is classified as very low to low. Total-N is classified as very low to medium, P₂O₅ as very low to very high and K₂O as low to medium. The land suitability class of duku plants in Sawang sub-district includes a marginal suitable class (S3) with limiting factors of rainfall, soil texture, soil depth, BS, organic-C, total-N, P₂O₅, slope and erosion hazard. Efforts to improve limiting factors that can be done are making rorak, addition of organic matter, applying of N fertilizer and P fertilizer, making mount terraces and planting strips.

Keywords : Land Characteristics, Sawang Sub-District, Suitability Class,
Suitability Marginal