ABSTRACT

Land evaluation is important to increase mangosteen production in Sawang sub-district. The purpose of this study was to determine the land suitability class of mangosteen plants in Sawang sub-district. This research uses a survey method consisting of 4 stages, namely the preparation stage, preliminary survey, main survey, and presentation of results. Soil sampling was conducted based on the Land Map Unit (LMU) created by overlaying the soil type map, slope map, and land use map. Ten soil samples were then analyzed for 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, P_2O_5 as very low to very high and K_2O as low to medium. The land suitability class for mangosteen plants in Sawang sub-district includes a marginal suitable class (S3) with limiting factors of soil texture, soil depth, base saturation, P_2O_5 , organic- C, total-N, slope and erosion hazard. Efforts to improve limiting factors that can be done are the addition of organic matter, the application of P fertilizer and N fertilizer, making terrace mounds and planting according to the strip.

Keywords : Land characteristics, Organic-C, Soil texture, ,P_2O_5