

## ABSTRACT

Dry land is a stretch of land that is never flooded throughout the year. Sawang District, Aceh Utara is an area dominated by dry land which has low soil fertility status. This research aims to determine the soil fertility status of dry land in Sawang District, Aceh Utara Regency. Twelve soil samples were taken from 12 LMU for analysis of the soil characteristics in the soil science. The soil characteristic was analyzed ie cation exchange capacity (CEC), base saturation (BS),  $P_2O_5$ ,  $K_2O$ , organic-C, and soil pH ( $H_2O$ ). The data on soil characteristics was assessed its criteria according to guidance by Indonesian center for standardization of soil instrument (BPSI) and the soil fertility criteria of the Bogor Soil Research Center. The results show that soil property criteria of dry land in Sawang District, Aceh Utara Regency varied values. Soil chemical properties, such as the pH ( $H_2O$ ) value at the research location was around 4.74-6.68 (slightly acidic-neutral), the CEC value ranged from 10.48-30.33 me/100 g (low-high), the base saturation value ranged from 2.73-25.27% (very low - low),  $P_2O_5$  value ranged from 3.19-47.80 mg/100g (very low - high),  $K_2O$  values ranged from 6.16-29.53 mg/100g (very low to medium), organic-C values ranged from 0.47-3.43% (very low - high). The soil fertility status on dry land at 12 LMU in Sawang District Aceh Utara Regency were low.

Keywords: dry land, soil chemical properties, soil fertility status