Soil acidity mapping of a swampland planted with rice in Ampukung Village, Kelua District, Tabalong Regency

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ABSTRACT

Swamp land is one type of wetland in South Kalimantan, where the water level is influenced by the season/rainfall. Based on the puddle level and duration, swamp land has three typologies, namely shallow swamp, middle swamp, and deep swamp. The wetlands in Ampukung Village are classified in the height of the puddle and the length of the inundation. Most of the swamps have been utilized for agricultural activities, especially rice. Till now, rice farming in the swamps of Ampukung has not experienced any significant problems. In 2016, the rice harvest in Ampukung exceeded the target of South Kalimantan. This success is increased by planting twice a year. However, some issues need to be addressed regarding the characteristics of the land in Ampukung Village. Soil fertility, especially soil acidity, is one of the limiting factors in the utilization of swamp land. Therefore, it is necessary to identify the acidity of the soil in the swamp of Ampukung village. The acidity data is basic information to determine the condition of soil fertility to achieve the target of planting rice twice a year. This information will be presented in the form of a map to assist users in interpreting the research data. This study found that the soil pH in the swamp lands of Ampukung Village, which was planted with rice, was highly acidic and homogeneously distributed.

Keywords: soil pH, Ampukung swamp, sub-optimal swampland, rice productivity.