ANALYSIS OF SOIL CHEMICAL FERTILITY STATUS ON DIFFERENT AGRICULTURAL LAND USES IN BOKOHARJO VILLAGE, PRAMBANAN DISTRICT, SLEMAN

By: Riskia Fajar Septianto
Supervised by: Didi Saidi

ABSTRACT

Based on data from the Central Bureau of Statistics in 2019-2022, Bokoharjo Village, Prambanan Subdistrict, Sleman Regency experienced a decrease in agricultural production, which is suspected by the decrease in soil fertility. Low soil fertility levels lead to a decrease in plant productivity. The purpose of this research was to determine the chemical properties of soil, determine the status of soil chemical fertility, and present it in the form of a map to provide information to support decision making, as well as appropriate tillage actions. Survey method was used in this study and purposive random sampling method was used to determine the sampling point. The technical guidelines for soil fertility evaluation (1995) was used to assess the soil fertility status. The parameter were the Cation Exchange Capacity, Base Saturation, P_2O_5, K_2O, and C-organic. Soil sampling was carried out based on the Land Map Unit from the overlay map of Land Use Map (rice fields and dry land), Soil Type Map and Slope Map. There were 9 (nine) sample points were obtained from the results of the Land Map Unit map, then soil sampling was carried out for the analysis of chemical properties. The results of the chemical analysis showed that the Cation Exchange Capacity level was high level, Base Saturation level was very low level, P_2O_5 level was very high level, K_2O level was very high level, C-Organic level was low level. The limiting factors in this study were the low level of Base Saturation and C-Organic.

Keywords: Bokoharjo Village, soil fertility, paddy fields and dry land, Soil Research Center 1995