

ABSTRACT

This study aims to determine the status of soil fertility on cocoa plantations, soil fertility parameters which are the limiting factors, making maps of soil fertility status and fertilization which was carried out after knowing the limiting factors on cocoa plantations in Bissappu District, Bantaeng Regency.

This research was carried out in Bissappu District, Bantaeng Regency, South Sulawesi and the Chemistry and Soil Fertility Laboratory, Faculty of Agriculture, Hasanuddin University, in February-March 2023.

The research method is a field survey, and soil sampling based on land unit maps. The soil samples analyzed in the laboratory included soil chemical properties, namely, Cation Exchange Capacity, Base Saturation, C-Organic, phosphorus content, and potassium content. The criteria for the data obtained, both primary and secondary data, are determined based on the criteria for soil chemical properties and the soil fertility status of each land unit is determined based on a combination of soil chemical properties and soil fertility status. The results showed that the status of soil fertility in Bissappu District, Bantaeng Regency was in the status of low to moderate criteria, the soil fertility parameters that became an obstacle in soil fertility status were the limiting factor of potassium which was classified as low, recommendations for fertilizing cocoa plants which were a limiting factor for soil fertility in the research location is potassium. Fertilizer application for cocoa plants that have low potassium nutrient status is KCl fertilizer at a dose of 180 kg/ha. By doing this fertilization, the nutrient status of potassium can be increased from low to high.

Keywords: Soil fertility status, *Theobroma cacao* L., Limiting Factors, Bissappu District.