

ABSTRACT

LIGAN, WILLY ACLON., Bachelor of Science in Agriculture (Soil Science), Central Mindanao University, University Town, Musuan, Maramag, Bukidnon, December 2016. Soil Fertility Assessment for Sugarcane Farms in Barangay Aglayan, Malaybalay, Bukidnon.

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A soil survey was conducted at barangay Barangay Aglayan, Malaybalay, Bukidnon on selected farms with the following objectives: (1) to assess the soil chemical properties (pH, OM, Extractable P and Exchangeable K) of sugarcane farms in Barangay Aglayan, Malaybalay, Bukidnon; (2) to generate a soil nutrient map of the sugarcane farms of Barangay Aglayan, Malaybalay, Bukidnon; and (3) to provide a fertilizer and lime recommendation to the sugarcane farms of Barangay Aglayan, Malaybalay, Bukidnon.

A survey questionnaire was used to gather information among farms and a total of twenty-two (22) sugarcane farms were collected with representative soil samples and then analyzed at the Soil and Plant Analysis Laboratory, College of Agriculture, Central Mindanao University. A correlation method was used to interpret the relationship between soil parameters and yield.

The 22 sugarcane farms surveyed in of Barangay Aglayan, Malaybalay, Bukidnon were identified as very strongly acidic, have medium organic matter content, low extractable phosphorus and very low in exchangeable potassium. These results need amendments to meet the recommended soil test values for sugarcane farms.

Fifteen (15) different sets of recommendation were derived from the analysis, where recommendation ranged from 80-200, 40-200, and 100-600 of N-P₂O₅-K₂O kg ha⁻¹

¹ and needed at least 0-5.70, 1.74-8.70, 3.34-20 bags of urea, di-ammonium phosphate and muriate of potash, respectively. The type of fertilizer recommendation is based on the farmer's choice of fertilizers. The farms that needed the lime recommendation ranged at 2-4, 6-7, 7.5-8.0 tons ha⁻¹ and no recommendations were given to farms with neutral soil pH.