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SOIL TEST KIT: AN EXTENSION TOOL OF CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE (CBSUA), PILI, CAMARINES SUR, PHILIPPINES

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ABSTRACT – The soil fertility status assessment using Soil Test Kit of the Department of Agriculture can be an immediate help to farmers located near CBSUA and the whole province. The fertility status will be determined in terms of the nitrogen (N), phosphorous (P) and potassium (K) levels in the soil. The study aimed to : (1) determine the nitrogen (N), phosphorous (P) and potassium (K) and pH of agricultural lands in Cadlan, San Agustin and Sagurong, Pili, Camarines Sur using Soil Test Kit (STK); (2) formulate fertilizer recommendations and integrated nutrient managements for the agricultural lands in the three areas selected and (3) determine how can STK be an extension tool of CBSUA. Rice, corn and sugarcane were the common crops grown in the three sites. Coconut and some vegetables were grown in San Agustin and Cadlan, respectively. The soil pH of soils in the three sites ranged from moderately acid (pH 5.4) to slightly acid (6.0). The N, P and K status differed in three areas. In Cadlan, low, medium and high N status; while in San Agustin, medium N status and in Sagurong, low and medium N status were observed. In Cadlan and Sagurong, results showed low, medium and high P status while in San Agustin, only low and medium P status. In Cadlan and Sagurong, there are K deficient and K sufficient areas. In San Agustin, the K status is sufficient. Based on the qualitative description of soil testing using soil test kit, results can be converted to recommended rate. For example, in rice, the recommended rate for medium N is 30-60 kg per hectare during wet season and 45-75 kg per hectare in dry season. The low, medium and high fertilizer recommendations can be computed based on the Soil Test Kit Manual. Other management practices that can be recommended are: addition of organic matter; and no burning of rice straw, instead it should be turning under the rice straw or convert to compost. STK can be re-introduced by the university as an extension tool for the farmers, to estimate the right amount of fertilizers to be applied in their farms, in the barangays under the CBSUA's Adopt-A-Community Program.

Key words: fertility status, soil test kit, fertilizer recommendations