CHANGES OF SOIL QUALITY OF VARIOUS AGE OF LAND MANAGEMENT ON COASTAL AGRICULTURE LAND SRIGADING VILLAGE, BANTUL, YOGYAKARTA

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ABSTRACT

The coastal land on Srigading Village is used as coastal farming land but has some limiting factors such as sandy soil texture, poor water holding capacity, low nutrients, and soil organic matter. Local farmers overcome these limitations by adding soil ameliorants such as adding clay and manure. This addition was made based on farmer's experience and has been carried out since 1987. This research aims to determine how much soil improvement has been achieved on Srigading Village coastal farming land using the soil quality index. The method used is the survey method and soil quality index analysis which refers to Mausbach and Seybold (1998). Sampling locations are determined based on the age of landuse, which consists of 0, 20, and 36 years. The parameters that are used are root depth, bulk density, porosity, aggregate stability, organic C, texture, pH, available P, exchangeable K, available N, total N, and the number of microbes. The result of this research shows that there is an increase in the soil quality index as the age of land management increases, the average Soil Quality Index on land with a management age of 36 years has a value of 0,693 classified as good soil quality, 20 years of land is 0,406 classified as low soil quality, and land that has not been cultivated is 0,360 with a low soil quality.

Keyword: coastal agriculture, soil quality, age of land management