ASSESSMENT OF SOIL FERTILITY STATUS CHEMICALLY OF AGRICULTURAL LAND IN KAYUMAS VILLAGE JATINOM DISTRICT KLATEN REGENCY

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ABSTRACT

Declining soil fertility can be a major factor affecting soil productivity. The purpose of this study was to assess the status of soil fertility, to find out the constraints on agricultural land and to develop a Soil Fertility Status Map in Kayumas Village, Jatinom District. This study used a survey method to determine the condition of the research location and a purposive method, namely selecting locations that have different land uses, namely gardens and fields in Kayumas Village. Determination of sample points is determined based on the land system map by overlaying land use maps and slope maps. Soil fertility status assessment was carried out based on the technical guidelines for evaluating soil fertility from the Center for Soil Research, Bogor 1995, namely based on a combination of soil chemical properties. The results showed that most of the soil in dry land and gardens in Kayumas Village had a cation exchange capacity (CEC) value of 6.20 – 16.48 me/100g (low), base saturation 12.48 – 33.59% (low) , P_2O_5 content 6.44 – 54.84mg/100g (very low to high), K_2O content 26.25 – 39.53 mg/100g (moderate), and C-organic 2.39 – 4.67% (high). All areas in the research location belong to one class of soil chemical fertility status, namely low soil fertility status with limiting factors namely Cation Exchange Capacity (CEC), base saturation and P_2O_5 content.

Keywords: status, soil fertility, soil chemistry, garden, moor