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Pengaruh kesuburan fisik ordo tanah vertisol dan inceptisol terhadap produktivitas aktual tanaman padi pada lahan pertanian di kecamatan Piyungan kabupaten Bantul Yogyakarta
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EFFECT OF PHYSICAL FERTILITY VERTISOL AND INCEPTISOL SOIL ORDER ON ACTUAL PRODUCTIVITY OF RICE PLANT IN AGRICULTURE LAND IN PIYUNGAN SUBDISTRICT BANTUL DISTRICT YOGYAKARTA

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ABSTRACT

This study investigated the effect of the physical fertility of the soil on the actual productivity of rice plants. The purpose of this study include (1). Knowing the distribution of physical fertility rate Vertisol and Inceptisol soil order on agricultural land in the Subdistrict Piyungan. 2). Knowing the level of actual productivity of rice plants on Vertisol and Inceptisol soil orders on agricultural land in the Subdistrict Piyungan and 3). Knowing the effect of the physical fertility levels Vertisol and Inceptisol soil order on the level of actual productivity of rice plants on agricultural land in Subdistrict Piyungan.

Physical fertility level assessed from the class of texture, permeability and effective soil depth, while the actual productivity of the land assessed from the results of annual production. The sampling method used in this study was stratified random sampling. The soil samples taken at each land unit at random and can represent the condition of land units. Primary data collection method by observation and interview, while secondary data was collected through instantional. Methods of data analysis performed on quantitative and qualitative, while the method of analysis results performed by using descriptive, qualitative and comparative.

The results showed that the level of physical fertility Vertisol soil orders in the class including medium and high fertility, while Inceptisol soil orders has low fertility and medium class. Distribution of high and medium class of physical fertility is found in relatively flat areas, while low fertility classes contained in the hills. Actual productivity of rice plants to Vertisol soil orders is at middle and low, while Inceptisol soil order have more varied of class, namely high, medium and low. Based on these results it is known that the physical fertility of soil has a relatively small effect on the actual productivity of rice plants. Actual productivity of the rice plant is more influenced by the human processing of soil.

Key words: *Soil Physical Properties, Fertility, Productivity*