

ABSTRACT

The aim of this study is to examine the effect of soil conditioners on thermal properties of sandy soil.

The soil sample is collected from the coastal plain of Samas, Yogyakarta. Four soil conditioners which are waste of sugar cane mill (blothong), waste of tapioca mill, cattle manure and chopped straw are applied on the soil surface.

Result of the study suggests that the thermal properties of the soil changed as effected by the organic matter. The changes indicated by the decrease of temperature fluctuation on the soil surface and rate of evaporation.

The heat capacity of the treated soil is less than the control as influenced by the increase of water holding capacity. However, there are no significant different of thermal diffusivity, thermal conductivity and rate of heat transfer between treated and untreated soil.