

SAT-79

Growth Performance, Morphology Characteristics And Physico-Chemical Properties Of Pineapple Variety MD2 Treated With Vermicompost As Supplement In The Field

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Abstract—Vermicompost is organic wastes produced from earthworm with a unique structure whereby it can enhance the soil condition and is also rich in all essential plant nutrients, thus increasing the fruit quality and its shelf life. A one year field trial with a randomized complete block design was conducted to elucidate the effects of vermicompost (compared to chemical fertilizer and control) on growth performance (plant height, number of leaves) of MD2 pineapple plants and its fruit quality (physical, chemical and sensory). MD2 pineapple plants supplied with vermicompost showed no significant difference with chemical fertilizer in terms of plant height and number of leaves. However, the flesh firmness and pulp colour were significantly different ($p < 0.05$). Therefore, the usage of vermicompost alone as a source of nutrients on MD2 pineapple plants is able to produce fruits with similar quality with commercially cultivated pineapple treated with chemical fertilizer.

Keywords— vermicompost; MD2; growth performance; chemical attributes; pulp.