

# The effect of enriched compost and nitrogen fertilizer on the growth and yield of sweet corn (*Zea mays* L.)

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## Abstract

The integrated use of enriched plant compost and nitrogen fertilizers are one of the main considerations in improving sweet corn productivity in the tropics. Experiment was conducted to determine the effects of enriched compost and nitrogen fertilizer on the growth, yield and mineral nutrients uptake of sweet corn. The treatments involved two enriched compost (rice straw and empty fruit bunches of oil palm each 20 t ha<sup>-1</sup>) subjected to three levels of nitrogen fertilizer (0, 75, 150 kg N ha<sup>-1</sup>). The 6 treatment combinations were laid out in a factorial experiment and fitted into a complete randomized block design with three replication. Compost was enriched by adding chicken manure and dolomite. Growth parameters, nutrient uptake and yield attributes were assessed. Result of experiment showed that enriched rice straw compost showed better vegetative and yield than enriched oil palm empty fruit bunch compost. The application of full recommended nitrogen fertilizers had the higher yield as compared with other treatments. This implied that the use of enriched rice straw compost and recommended nitrogen fertilizers could be advisable to be applied for the small scale agriculture cultivation in the red acid Ultisol soil.

**Key words:** rice straw compost, oil palm empty fruit bunch compost, Urea, ear quality, nutrient uptake

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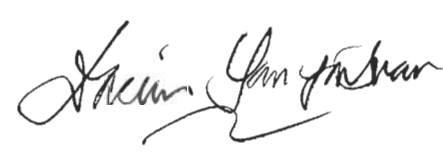
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