

Growth and yield of sweet corn as affected by paddy straw plant compost and potassium fertilizer

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Abstract

Information on the combined effect of enriched paddy straw compost and potassium fertilizer is needed for tropical regions. The objective of the research was to study the application of plant compost (paddy straw (*Oryza sativa*) compost and enriched paddy straw compost) and potassium fertilizers doses on the growth and yield of sweet corn. The experiment was conducted in Bandar Lampung, Indonesia from December 2014 until March 2015. The experimental design was factorial design 2 x 3 within completely randomized block design with 3 replications. The first factor were plant compost and enriched paddy straw compost. Chicken manure and dolomite were added to enrich the quality of compost. Experiment showed that enriched paddy straw compost showed maintain better growth and higher yield of sweet corn than standard paddy straw compost. The application of potassium fertilizers combined with enriched paddy straw compost showed the better growth, a higher N, P and K uptake. In consequence, application of compost for sweet corn can be adapted with material in situ such as straw paddy rice.

Key words: enriched compost, plant compost, nutrient uptake, KCl

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