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Application of Crude Palm Oil Liquid Sludge Sewage On Maize (Zea mays. L) as Re-Cycle Possibility to Fertilizer

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Abstract : Crude palm oil liquid sludge sewage was treated to maize with 400 cc/plant could be increased mean relative growth rates, net assimilation rate, leaf area and dry weight of seed. There are indicated that 400 cc / plant treated to maize significantly increase the average of mean relative growth rates into 0.32 g.day-1. Net assimilation rates increase from 13.5 mg.m-2.day-1 into 34.5 mg.m-2.day-1, leaf area at 50 days after planting increase from 1419 cm-2 into 2458 cm-2 and dry weight of seed from 38 g per plant into 43 g per plant. Crude palm oil liquid sludge waste chemical analysis indicated that, there are no exceed threshold content of dangerous metals and biology effects. Cadmium content as heavy metal is lower than threshold of human healthy tolerance. Therefore, it has no syndrome effect to human health. Biological oxygen demands and chemical oxygen demands as indicators for micro-organism activities, there are under the threshold of human healthy tolerance.

Keywords : crude-palm-oil, fertilizer, liquid-sludge, maize, pollutant, waste
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