ผลิตขึ้นมีประสิทธิภาพใกล้เคียงกับปุ๋ยน้ำชีวภาพตามท้องตลาด โดยให้ผลผลิตพืชทดสอบทั้ง 2 ชนิด ไม่แตกต่างกัน แต่ยังมีประสิทธิภาพต่ำกว่าปุ๋ยเคมี

ABSTRACT

Liquid compost production from cassava (*Manihot esculenta* Crantz) starch waste had been studied from June – October, 2001. The cassava starch waste was supplied from Chao Khun Kaset Puet Phow Co. Ltd., Saraburi, a high– fructose syrup producing factory. The composition of bio-extrat were cassava peel (kg), molass (kg) and waste water (l) which three optimal formulas were finally obtained as follow, : 3 :1 :15, 2 :1 :10, and 2 :1 :15. The fermentation was completed at the thirteenth week and the obtained liquid composts showed brown colour with wine-like smell. At initial stage of fermentation, the pH value was low but it increased and became constant at 3.73 - 3.96. During the process of fermentation temperature was stable around 35 ^{o}C. C/N ratio of them was 19.27 – 25.00. The liquid composts were total nitrogen 0.08-0.11 %, total phosphorous 0.06-0.07 %, potassium 0.28-0.43 %, calcium 0.2- 0.63 %, magnesium 0.03-0.05 %, copper 1.29-1.36 mg/l, iron 324.33- 363.14 mg/l, zinc 1.41-4.51 mg/l and the electrical conductivity was 9.46-10.62 ms/cm . In order to study the proper concentration of cassava waste fermented liquid composts, it was used with Chinese cabbage (*Brassica chinensis* L.) and the result showed that 0.1% and 0.3% of 3:1:15 and 2:1:10 produced composts should be applied to the foliage and root, respectively. In the case of 2:1:15 produced compost, spraying every other day of 0.3% to the foliage and 0.5% applied to the root showed the best response. In addition, liquid composts from cassava starch waste was comparable studied with commercial and mineral fertilizer for the efficiency test. It was concluded that there was no efficiency difference in term of crop growing between the liquid composts and thecommercial. However, applying mineral fertilizer to Chinese cabbage and marigold (*Tagetes erecta* L.) showed more effective result than the two liquid composts from cassava starch waste and commercial liquid composts.