Abstract

Research Title : Suitable Pattern of Recycling Organic Wastes in
Suan Sunandha Rajabhat University as Compost
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This research aimed to study on the potential of recycling organic wastes in Suan Sunandha Rajabhat University as compost. In doing so, the composition of solid waste generated per day in the campus was investigated while physical and chemical properties of organic wastes were analyzed in order to evaluate the suitable portion of wastes for recycling as compost. Two patterns of composting by aerobic process were designed in which Pattern I represented the use of food waste, mixed leave & yard wastes and mixed fruit & vegetable wastes at the portion of 3:2:1 by weight and Pattern II represented the use of food waste, mixed leave & yard wastes, mixed fruit& vegetable wastes and coconut flake at the portion of 3:2:1:1 by weight, respectively. As a result of the study, it was found that (1) organic wastes i.e., food waste and mixed fruit & vegetable wastes had the highest amount of 47.89 % followed by recycle wastes as plastics, papers and glasses at the amount of 21.41, 9.16 and 4.78 %, respectively; (2) composting product of pattern I had its quality as follows; moisture content at 38.81%, chemical components as N, P and K at 3.09, 1.17 and 2.74%, pH at 7.16 and C/N ratio at 11:1 while pattern II showed different result by moisture content at 63.99%, chemical components as N, P and K at 2.22, 0.82 and 2.40%, pH at 6.43 and C/N ratio at 19:1; and (3) composting product of pattern II had better quality than that of pattern I in which the statistical comparison by t-Test showed that there was different between the quality of products derived from two patterns of composting at the significant level of .01 [Sig. = .000 < α (.01)].

Keywords : Organic wastes, Moisture content, Chemical components, C/N ratio, Compost