Composting potential of kitchen waste generated from the student canteen. A case study in the Faculty of Science, University of Kelaniya

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Disposal of kitchen waste, which contains about 80% of moisture, to landfills causes many environmental and social issues. Kitchen waste may be wasted if it is just dumped to landfills as it will break up naturally and never be used directly again, having its nutritious matter lost within the waste. Composting is one means of reducing the problems associated with dumpsites. This study aimed at studying the potential of composting the kitchen waste generated by the student canteen in the Faculty of Science, University of Kelaniya using three holding units. Kitchen waste and dried garden leaves were added in the ratio of 1:1, 1:2 and 1:0 in the three holding units made for Treatment A, Treatment B and Control respectively. Fresh cow dung slurry was used as an activator. Moisture and aeration were provided sufficiently during the composting process. pH, moisture, organic carbon content and total nitrogen content were tested in resultant composts. Results revealed that pH and moisture in Treatment A, Treatment B and Control were comparable to Sri Lanka Standards specifications. Organic Carbon and total nitrogen contents in Treatment A, B and Control showed significant deviations from acceptable range. No significant differences were observed among the treatments for each selected parameter ($p>0.05$). Treatment B showed 40.65% of compost production while Treatment A and Control showed 26.39% and 16.59% respectively. The study suggests that the Treatment B is the best in producing compost from kitchen waste.

Key words: Compost, C/N ratio, kitchen waste,