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An Investigation of the effect of left over "food waste" on composting

K S H Thabrew *, D D Wickramasinghe and S W Kotagama
Department of Zoology, Faculty of Science, University of Colombo, Colombo 03

The study investigated the effect of "food waste" as the major component of garbage on composting, using nine composting bins issued by the Central Environmental Authority, Baththaramulla, Sri Lanka (CEA). The investigation included three treatments named; "treatment pre" (only "pre cooked food waste"), "treatment post" (only "post cooked food waste") and "treatment mix" ("pre cooked food waste" and "post cooked food waste" was used in 1:1 ratio). Leaf litter was used as supplement material for all the three treatments.

Several physiochemical and biological parameters of each treatment were recorded both on a daily and weekly basis. As daily parameters temperature, pH variations were studied, which weekly parameters were the total Carbon, organic Carbon and organic matter, ash and moisture contents while as the biological parameter insect larval densities were measured.

During the study period the highest temperature values and highest larval densities of *Hermetic* species (Family: Stratimyidae, Order: Diptera) were found most abundantly in "treatment post", then in "treatment mix" and least in "treatment pre", respectively. This is an indication that the composting process happens most efficiently in "treatment post", then in "treatment mix" and in "treatment pre". The pH values were significantly different between each treatment and tended to stabilize at 6.8, with time, but never came to 7.0, which is the value of fully matured compost.

The results indicate that, after 63 days, there were compost produced in all three treatments and showed that, leftover "food waste" has a significant effect on the composting process, which the

process happens most efficiently in “treatment post”, then in “treatment mix” and in “treatment pre”. Considering all above factors, it is better to dump “post cooked food waste” alone or by mixing with “pre cooked food waste”, rather than dump “pre cooked food waste” alone.

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*samadhithabrew@yahoo.com Tel: 011-2970129