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Effect of different organic additives on plane leaves composting process

P. Mashayekhi[1] and P. Azizi[2]
1. M.Sc. of research center of agriculture and natu
2. Associated Prof. of Guilan university

Plane tree (*Plantanus Spp*) is one of the annually deciduous tree that the composting procedure of it's leaves takes long time. The objective of this experiment was to study the effect of organic material additives on quality and the composting rate of plane tree leaves.Green house studies were conducted using a completely randomized block design in a factorial arrengement with 3 replications. Treatments included 0, 25, 50, 75 percent of organic material additives (manure, eagle fern(*Pteridium aquilinium*) and elder(*Sambucus eblulus*) leaves) on volume bases. The control group was 100% plane tree leaves. These materials were composted in 6 month, and were monthly sampeled and C/N , C/P, pH, Ec, were measured as some of important evaluting factors of composting. The results showed that the changes of C/N ratio in pure plane tree leaves were too low(ranged from 21 to 23); however the additive materials had significantly decreased C/N ratio($P<0.01$). Different volume amounts of additive materials decreased C/P ratio significantly ($P<0.01$).The effect of manure on C/P ratio decline was the most. The value of pH in all treatments ranged from 5.5 to 8 in 6 month, and these findings agrees with universal standards in a mature compost. All kinds of additives had increased Ec significantly ($P<0.01$) at the end of experiment.

Keywords: Composting, Plane tree leave, pH, Ec, C/N, C/P

[1] Corresponding author Email: mashayekhi_enj@yahoo.com