Annals of Sri Lanka Department of Agriculture 2015. 17: 382

Poster

IMPORTANT CHARACTERISTICS OF COMMERCIALLY PRODUCED COMPOST

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ABSTRACT

Maintaining and improving of Soil Organic Carbon (SOC) status is an immensely important to improve soil quality and thereby to increase the performance of the soil. Compost addition increases soil biological functions, fertility and physical attributes that enhance drainage and moisture holding capacity and consequently reduces compaction and soil erosion. However, application of quality compost is a pre-requisite to ensure a good soil health. Quality of compost includes level of maturity, C:N ratio, major plant nutrients and level of contaminants etc. Sixty five samples of compost produced by commercial farmers were analyzed for chemical characteristics. Results revealed that pH and moisture contents (dry weight basis) of compost ranged from 5.21-8.38 (mean 5.92±0.75) and 4.15%-37.03% (mean 14.30±7.46), respectively. Nitrogen, Phosphorous and Potassium content varied from 0.29%-3.74% (mean 1.38%±0.69%), 0.04%-4.4% (mean 1.33%±1.02%) and 0.10%-2.95% (mean 1.02%±0.68%) respectively. Results further showed that, above average values recorded were greater than the minimum levels identified by the Sri Lanka Standards Institute (SLSI). However, C:N ratios of tested compost ranged from 0.75-8.38 (mean 6.75±1.10) which are below the SLSI standards. Moreover, sand % of tested compost were greater than the SLSI standards of 10%. Therefore, these results reveal that in order to start the successful composting enterprise to produce high quality marketable compost products, row materials should be blended to provide required nutrients that facilitate improved microbial activity and growth with a balanced C:N ratio.