

Co-composting of palm oil mill sludge-sawdust

Abstract

Composting of Palm Oil Mill Sludge (POMS) with sawdust was conducted in natural aerated reactor. Composting using natural aerated reactor is cheap and simple. The goal of this study is to observe the potential of composting process and utilizing compost as media for growing *Cymbopogon citratus*, one of Malaysia herbal plant. The highest maximum temperature achieved is about 40°C and to increase temperature bed, more biodegradable substrate needs to be added. The pH value decrease along the process with final pH compost is acidic (pH 5.7). The highest maximum organic losses are about 50% with final C/N ratio of the compost is about 19. Final compost also showed some fertilizing value but need to be adjusted to obtain an ideal substrate. Addition of about 70% sandy soil causes highest yield and excellent root development for *C. citratus* in potted media. Beside that, compost from POMS-sawdust also found to have fertilizer value and easy to handle. Composting of POMS with sawdust shows potential as an alternative treatment to dispose and recycle waste components. © 2007 Asian Network for Scientific Information.