

ABSTRACT

A palm oil leaf midrib contain high lignin then it takes a long time in the decomposition process, because of that it is needed to add activator to accelerate the composting process. The purpose of this research is to get the effective type of activator to accelerate composting of oil palm leaf midrib. This research was conducted at compost house (Green House) Faculty of Agriculture Universitas Muhammadiyah Yogyakarta, from May to July 2017. The research used single factor experiment method arranged in a Completely Randomized Design (RAL), consisting of 4 types of treatments, namely: Cow manure activator, Effective Microorganism 4 (EM4), Old active compost bag and without activator as control, each treatment repeated 3 times thus Obtained 12 units of experiment. The parameters observed are physically and chemical, for physically are temperature, moisture, colour, smell, water content, weight shrinkage and particle size distribution of compost and for chemical observation are: pH, C organic, organic matter, N Total and C/N ratio of compost. The results showed that the Activator material gave a real effect on all parameters of palm leaf midrib compost and EM4 is the most effective activator to accelerate the composting of palm leaf midrib.

Keywords: Activator, Composting, palm oil leaf midrib.