

## **Composting of food waste in passive aerated bioreactor with turning mode**

### **ABSTRACT**

Almost 45% of municipal solid waste in Malaysia consist of food waste. Composting is one of the sustainable ways to manage food waste compared to incineration and landfilling. This paper investigates the physicochemical and phytotoxicity characteristics during food waste composting in passive aerated bioreactor assisted with compost turning. The initial compost mixture consists of 124 kg of food waste mixed with 62 kg of dry leaves. The composting process was conducted for 40 days, and physicochemical characteristics i.e., temperature, moisture content, total organic carbon, pH and conductivity were monitored. Seed germination test was conducted with cabbage seeds (*Brassica oleracea*). The highest temperature and final moisture content obtained were 42 °C and 78%, respectively. The seed germination index value was 127%, indicating that the compost is suitable for plant growth.