

Utilizing leafy vegetable waste for production compost as a mean of planting media

ABSTRACT

The Sabah State Government in 2018 noted that the state was facing significant challenges in managing its solid waste, due to factors such as limited resources, inadequate infrastructure, and inadequate public awareness of waste management practices. The total amount of municipal solid waste generated in Sabah was reported to be 2,062,390 kg per day. Composting is decomposing organic matter, such as food scraps, yard waste, and other natural materials, into a nutrient-rich soil amendment that can be used to improve soil fertility and structure. This study aimed to evaluate composted leafy vegetable waste as planting media. This research was conducted at the Faculty of Sustainable Agriculture. There were 4 treatments for this research, namely T1: 100% leafy vegetable waste, T2: 50% leafy vegetable waste + 50% compost matured chicken manure, T3: 50% leafy vegetable waste + 50% peat moss, and T4: 50% leafy vegetable waste + 50% topsoil. Data collection in this research includes temperature, moisture content, C/N ratio, pH, electrical conductivity (EC), sowing green mustard, and cost. Data were analyzed using SAS 9.4 and presented by Tukey at $p > 0.05$. The findings of this study have important implications for the sustainable management of vegetable waste, as peatmoss provides an alternative solution to waste disposal while promoting soil health and agricultural productivity.