

Influences of Bedding Material in Vermicomposting Process

ABSTRACT

Rapid growth of urbanization and industrialization has led to generation of large quantities of wastes. Major portion of organic waste is dumped in landfill sites, creates the organic load on the ground water, and more emissions of landfill gases. The best possible alternative to reduce these potential pollutants is through vermicomposting. Vermicomposting is essentially composting with worms. This experiment was done to determine which bedding materials (either newspaper or sawdust) is more suitable for vermicomposting by using biological parameter which measured the growth rate (pH), number of worm, number of cocoons and worm biomass. The worms were breed in vermicomposter and the period of vermicomposting using *Perionyx excavatus* worm is six weeks. All of the four biological parameters showed that there are significant different between this two type of bedding using ANOVA test. The Duncan test demonstrated that newspaper bedding is more influential in worm biomass production and growth rate while sawdust bedding is better for cocoons production and number of worm. For pH analysis it reveals that the optimum pH for worm growth rate is near to neutral condition. As conclusion, different types of bedding material will influence the worm growth.

Keyword: Vermicomposting, Bedding materials, Biological parameters