

Stability assessment methods for composts. (A05-sullivan165307-Oral)

Authors:

- D.M.Sullivan - *Oregon State University*

Abstract:

Stable composts exhibit low respiration rates, indicating that readily-degradable C compounds present in raw organic materials have been transformed to well-decomposed organic matter. Composts with consistent stability are needed for quality potting media, and for predictable plant-disease suppression. Stable composts are considered safe from a human health perspective because they lack a suitable substrate for human pathogen re-growth. Methods to assess compost stability measure O₂ uptake or CO₂ evolution. Major differences in methodology are mainly a function of sample preconditioning, temperature, sample size and moisture content, air-flow, test duration and measurement precision. Debate continues among composters, regulators, and compost users as to the validity of different test methods. Current and proposed compost stability testing methods will be described, with attention to their advantages and limitations.

Corresponding Author Information:

Dan Sullivan	phone: 541-737-5715
Oregon State University	fax: 541-737-5725
3017 ALS; Soil Science	e-mail: Dan.Sullivan@orst.edu
Corvallis, OR 97331	

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