

The Hand Squeeze Moisture Test for a Compost Pile

 15-30 min

 Compost process

 All ages

Materials

- 3 buckets or containers
- Gloves
- Water
- Samples of material from the active composting pile
- Optional: Tape and marker for labeling

Background

- The Hand Squeeze Moisture Test is used to determine if the active composting pile has the ideal 50-60% by weight moisture content.
 - If the pile gets too dry, microbial activity will slow or cease
 - If the pile gets too wet, there is a loss of air in the pile which leads to anaerobic conditions.
- It is used when the composting pile is first built, when it's flipped, and during troubleshooting.



Objectives

1. To demonstrate a technique used to determine if an active composting pile has the ideal moisture content.
2. Participants will be able to
 - Understand the ideal moisture level of an active composting pile
 - Know when the pile is too dry
 - Know when the pile is too wet
 - Successfully demonstrate the hand-squeeze test

Instructions

1. Fill each of the containers about $\frac{2}{3}$ full from the active composting pile
2. Add water to each of the containers varying from
 - No water (This sample should be dry)
 - Just right (Enough water for the sample to be moist)
 - Too much (Saturated & dripping wet)

3. It is optional to label the containers as 1,2,3 or a,b,c which will make discussing the difference in moisture content of the containers easier
4. For the demonstration, ask for a volunteer to come up and pick up a handful out of the dry composting material bucket
5. Ask them to squeeze their hand into a fist.
 - If it's too dry, it will fall apart and no water will be produced
 - If it's the correct moisture, only a few drops of water should be produced
 - If it's too wet, the water will be dripping down their arm
6. Repeat with the other samples.

Alternative Options

- For a longer, more in depth activity, have participants add water to their own sample of composting material to practice adding the correct amount of moisture to their pile.
- Another option is to wait to add the water for the demonstration to show how much water it takes for the material sample to reach the ideal moisture content