

How-To: Troubleshooting Compost Problems

Usually, compost just “happens.” That is, if you pile up a bunch of organic matter, such as leaves and vegetable scraps, it will eventually break down, or turn into compost. However, to get the best compost — odor-free, rich in nutrients, with a nice, crumbly texture — it’s best to keep an eye on the decomposition process and understand how to determine if something’s amiss. Here are some common compost problems — and solutions.



Pile Stops “Cooking”

If the center of the pile or bin isn’t warm, then the decomposition has slowed or stopped. When microbes are busy breaking down organic matter, they generate heat. And you want to keep those microbes working! Here are some reasons why your pile isn’t heating up.

Dry materials. Strive to keep the materials in your bin moist but not soggy. If the materials dry out too much — which can happen quickly during hot, sunny weather — microbial activity will stop. Fortunately, it’s easy to remedy.

- Water the materials in the pile or bin, turning them with a fork so they’re evenly moist.
- Loosely cover the top of the pile with a tarp or plastic sheeting to reduce evaporation while still allowing airflow.

Inadequate “greens.” For optimum performance, microbes require a balance of nitrogen-rich “green materials” and carbon-rich “brown materials.” Green materials include fruit and vegetable scraps, freshly pulled plants, and fresh grass clippings. Brown materials include dry leaves and straw. Layering green and brown materials gives microbes the proper diet for to keep them active.

Pile is too small. There needs to be a certain amount of mass to keep conditions favorable for microbes, especially in extreme weather. In cold temperatures, for example, a small bin or compost pile will get chilled right to the center no matter how hard the microbes are working. To keep compost cooking during cold weather, use a large bin or make a pile that’s at least 3’ diameter and 3’ high. (Avoid making the pile too large — greater than 5’ across or high — to prevent excessive heating.)

Pile needs turning. Mixing the materials — either by turning a tumbling bin or using a garden fork — incorporates uncomposted materials so the microbes can reach them and get to work.

Compost Smells Bad

If you notice a foul odor, especially one that resembles ammonia, it’s likely the materials are too wet. Efficient composting requires the presence of aerobic microbes — microbes that require oxygen. Overly wet piles lack oxygen, which kills off these microbes. When that happens, the anaerobic microbes take over, and they give off that unpleasant smell.

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To remedy the problem, allow the pile to dry out. Open the bin or uncover the pile to allow the materials to dry in the sun, then cover them to keep out the rain. Sometimes, too much nitrogen (green materials) will result in that ammonia smell; to remedy this, incorporate some dry, brown materials.

Materials Are Unevenly Composted

This isn't really a problem, it's more the nature of the composting process. The parts of the pile that have the optimal conditions will decompose the fastest, and the rest will proceed more slowly. To make use of the finished compost within the pile, you can use a sifter to separate the dark, crumbly finished compost from the bits of uncomposted materials (return these to the pile to continue breaking down). To help the materials decompose more evenly, chop materials before adding them; this increases their surface area and speeds decay.

Learn more:

Gardening Basics: Composting

<https://kidsgardening.org/gardening-basics-composting/>

Worm Composting

<https://kidsgardening.org/gardening-basics-worm-composting/>

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