

Composting Basics

Why Compost?

1. Less garden material to put out at the curb.
2. You make it yourself; you know what is in it, it's free, and you won't need to buy fertilizer!
3. Compost is very beneficial to almost all soils.

What is compost? Decomposed plant material containing organic matter, essential mineral plant nutrients and beneficial micro-organisms. It takes about 12 bags of garden refuse to make one bag of compost as the cellulose portion of the plants will decompose and much of the water will dissipate.

Why is it beneficial? The organic matter in compost helps soils that are sandy to retain moisture. When added to clay soils, compost lightens it, making it easier to work plus providing better aeration and drainage. The plant nutrients in compost supplement those already in the soil. Micro-organisms found in compost will inoculate the soil with beneficial bacteria and fungi.

What container or system to use? You can compost in a black plastic composter, in a homemade wood slat frame or in a pile on the ground.

- plastic composters are mostly dome shaped or boxlike. They are loaded at the top with plant debris and the finished compost comes out at the bottom. There is a lid to keep the rain out and there are ventilators to aid airflow. The plastic containers are neat and allow for greater control however materials near the edges tend to dry out.
- plant material can also be piled on the ground or within a home-made box/cage. A pile is easier to turn with a garden fork to aerate and easier to shovel into a wheelbarrow when it's ready.

What to add?

Green – weeds, grass clippings, prunings, and green kitchen waste. Avoid adding weed plants or diseased materials. Green material contains nitrogen that will help feed the bacteria and fungi that will decompose the plant material to make compost.

Brown – dead leaves, stems and sticks. When leaves turn brown, they lose much of their nitrogen and will compost very slowly unless mixed with green material or supplemented with fertilizer containing nitrogen (we recommend organic fertilizer).

Starter - inoculate (bacteria and fungi) with garden soil or finished compost. If there's an imbalance of brown materials, also add a source of nitrogen such as alfalfa or soybean meal, or an organic fertilizer.

Moisture - Water your pile to maintain moisture levels, but not to the point of soggy. Bacteria and microbes will not activate properly if the compost goes dry.

Air – Oxygen is essential for the process. Composting is a slow burn. In a plastic composter, air vents are provided, and a pile can be periodically turned over. Sticks within your pile can help make an open-air layer and prevent the pile from becoming too compact.

What not to add?

- Meat, fish, cat litter, dog waste, fat, oils.
- Diseased plants, in particular diseased tomato or potato plants.
- Seeds of plants/weeds that will create problems if they survive composting.
- Roots of problem perennials such as twitch grass or goutweed.
- Dense hard items such as corn cobs, walnut shells, pieces of wood

How to Build your Compost Pile

- Choose your location – placing it far away may make it less likely that you'll trudge back there with your kitchen scraps! A sunny location is preferred as it helps speed the process.
- Start with a layer of small sticks, then a layer of brown leaves then a layer of green leaf material.
- Top this with some 'starter' – the soil + compost you already have, or a small amount of organic fertilizer.
- Water evenly to distribute the soil, compost, and fertilizer down through the pile. If you use regular powdered fertilizer, add it to the water at a rate of one tablespoon to a watering can full of water.
- Repeat the above procedure until the composter is full or you run out of material.

Maintenance Tips

- Check periodically to make sure the material is moist so your microbes don't stop working. If you decide to add more water, we suggest again sprinkling in a bit more finished compost to keep things percolating.
- Turn your pile periodically to aerate it and help it decompose more quickly.
- Avoid getting it too wet or it will smell and the process will slow down. If your pile is too wet, you can turn it and add more leaves or dump it all out, add the leaves and remix it and refill.
- There is often an imbalance in the materials available to be composted. Brown leaves are available in abundance in the fall. Green leaves are available throughout the spring, summer, and early fall. Stockpile excess leaves over the winter in tough construction bags. They can be used in compost next spring or as mulch around shrubs.

What to Expect

- With a plastic composter that's loaded at the top and emptied at the bottom it will take four to five months to complete composting in the spring and summer, and seven to eight months over fall/winter. The higher the temperature, the faster the microbes get the job done.
- As decomposition proceeds, the pile will shrink, especially in hot weather. This leaves space for you to add more garden debris.
- Compost does not have to be fully finished. Partially finished compost can be dug in or spread over the soil and the soil microbes will finish the job.

Composting is good for the environment because it uses materials already on site and the nutrients are slowly released into the soil rather than washed off the property and into the storm sewers in a heavy rain.

Best of all, it's all your own work with your own good quality materials, so you can feel comfortable it's suitable for all garden uses.

Happy Composting!



Linda Armstrong
London Middlesex Master Gardeners