

# Composting 101

## Why Compost?

1. Less garden material to put out at the curb.
2. You make it yourself; you know what is in it, and it's free.
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 from the store, or you can compost in a pile on the ground. The 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. Alternatively you can pile the plant material in layers on the ground or within a home-made box/cage. The plastic containers are neat and allow for greater control. However, a pile is easier to turn with a garden fork to aerate and easier to shovel into a wheelbarrow when it's ready. In either case, it will speed the process to compost in a sunny location and thoroughly mix the contents occasionally.

## 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 in particular will not work 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, 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.
- Leaves of walnut trees.

## How to Build your Compost Pile

1. A layer of sticks, then a layer of brown leaves then a layer of green leaves.
2. On top of this sprinkle soil, compost from the composter and then organic fertilizer.
3. Water evenly with a watering can. The water will distribute the soil, compost and fertilizer down through the pile. If you use regular powdered fertilizer, add it to the water, one tablespoon to a watering can full of water.
4. Repeat the above procedure until the composter is full or you run out of material.

## Other Tips

Check periodically to make sure material is moist. If it becomes dry, the microbes will stop working.

If you get it too wet, it will smell. Plastic composting bins tend to dry out round the edges.

A compost pile should be turned periodically to aerate it. It will decompose faster that way.

You can add kitchen waste any time.

A plastic composter is loaded at the top and emptied at the bottom. It takes four to five months to complete composting in the spring and summer, seven to eight months fall/winter. The difference is the temperature. The higher the temperature, the faster the microbes work.

As decomposition proceeds, the pile will shrink, especially in hot weather. You can continue to add more garden debris as space becomes available.

Check the moisture regularly. A dry compost pile is not working. Add more water and with it more compost. If you do manage to get the compost too wet, the process will slow down and it will start to smell. A pile can be turned and more leaves added. With a composter, you can turn it all out, add more leaves and refill it, or you can wait for it to dry out.

Compost does not have to be completely finished. Partially finished compost can be dug in or spread over the soil and the soil microbes will finish the job.

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. Stock pile excess leaves over the winter in tough construction bags. They can be used in compost next spring or as mulch around shrubs.

**Composting is** dependent on factors such as the composter used and its location, the nature and quantity of the compostable material available, and the time that you are willing to spend on it. It 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!



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