



Healthy Garden Workshop Series

September 11, 2009

Making and Using Compost

Compost is organic matter that has decomposed. It's an easy way to reduce the amount of waste you send to the landfill and a cheap way to get nutrients for your garden. When compost is incorporated into your soil, it adds oxygen that roots need, helps the soil retain moisture, and attracts beneficial organisms like earthworms. Compost makes a great natural fertilizer for plants and is easy to make!

How to Compost

The best compost has a rich mixture of materials, as well as oxygen and water to help break down the materials. Compost can incorporate yard waste or food scraps from your kitchen, or both. Two ways to compost are using a bin or using worms (vermicomposting).

Here are some tips for bin composting:

- Use a bin.** The bin allows you to control the temperature and moisture level of the compost. It will also help keep piles neat and smells and pests down. Your bin should be at least three feet square. You can make your own or buy one.
- Add water regularly.** The microorganisms that decompose the material need the moisture. The pile should always be slightly moist, but not wet.
- Mix it up.** A balance of green and brown materials, such as grass clippings and leaves, will make for the most effective composting.
- Break it down.** Smaller materials decompose much more quickly than large materials. So before you add waste, cut it up.
- Add carefully.** Always bury kitchen waste inside the pile to discourage pests and to prevent odor from rotting fruit and vegetables. Never add meat, animal fats, or dairy products to a compost pile.
- Be creative.** Instead of bagging those leaves you rake this fall, put them in your compost! When you cut your grass, leave the fallen blades on the lawn as natural fertilizer, or throw them in the compost pile! The pruned bits of trees and shrubs can also be composted, and so can old potting soil.
- Stir often.** Use a pitchfork or shovel at least weekly for faster composting. When you stir or turn the compost, you add needed oxygen and mix the elements of the compost.
- Wait for it.** Compost takes at least four to six weeks to make. But if you use large materials or don't stir or water the pile often enough, it could take up to a couple of years for materials to break down enough for them to be useful in the garden. Make sure your compost has completely decomposed before you add it to the soil.

Vermicomposting

Vermicomposting, also called vermiculture, is simply composting with worms. The waste the worms produce is called castings, and it's extremely rich in nutrients!

Here are some tips for vermicomposting:

- Use a bin.** You can buy one or make it. Most vermicompost bins have two chambers, so that when the compost is ready to use, you can attract the worms to the other chamber—that way you don't lose too many worms when you empty the castings into your garden.
- Pick the right worms.** Typically red wigglers are the type of worm recommended for a vermicomposter, because they are extremely efficient at breaking down organic matter. You can buy worms on the Internet or through gardening catalogs.
- Know how many worms you need.** How much kitchen waste does your household generate in a week? If you go through a lot of produce, you're going to need a lot of worms. Worms eat at a pretty steady pace, and if you overwhelm them, the food will begin to rot before they get to it, possibly leading to odors and other undesirable outcomes.
- Feed your worms thoughtfully.** You probably want to stick with kitchen waste (but not animal products) for your vermicomposter. But experiment a little—by paying attention to what your worms prefer to eat, you can maximize their feeding power.
- Keep them comfortable.** Worms like to be kept at a moderate temperature (60s and 70s. In the winter, keep them somewhere where they won't freeze—by the warm side of a house, or in a garage. In the summer, make sure they are out of the sun so they don't get cooked!
- Use the tea.** If you buy your vermicomposter, you'll probably notice it has an area for liquid catchment. This liquid is called "worm tea" or "compost tea," and plants love it! Make sure to take advantage of your worm tea.

What to Compost

The key to composting properly is balancing "green," or nitrogen-rich, materials with "brown," or carbon-rich, materials (plus air and moisture). Here are some items you can compost in a compost bin. (Note that if you vermicompost, the worms might not consume all of these items.)

Green

Grass clippings
Weeds
Fruit and vegetable scraps
Eggshells
Plant trimmings
Farm animal manure

Brown

Fallen leaves
Twigs and fallen branches
Wood chips and sawdust
Tea bags
Coffee grounds and filters
Paper towels
Pine needles
Dryer lint
Cornstalks and corn cobs
Shredded newspaper and cardboard

Never compost pet waste or animal fats like meat, grease, and cheese. They can create odor problems and attract pests. If your compost bin or vermicomposter has a rotten, sour, or otherwise unpleasant odor, it is not being maintained correctly.

The USDA is an equal opportunity provider and employer.

