



# How to Compost your organic waste

Home composting is an easy way to turn much of the waste from your yard and kitchen into a rich material that you can use to improve your soil.

## Composting: Break it down

1.



Make a compost bin — or buy one.

2.

Throw in your kitchen scraps and yard waste.



3.



Mix it up with a shovel or pitchfork once in a while.

**More details on back!**

## Why compost?

Home composting is a way for you to speed up the natural process of decomposition and return organic materials to the soil. Yard trimmings and food scraps make up nearly 1/6 of what the average household throws into the garbage.

Why throw this stuff away when it could be used in your yard and garden?

By composting, you can convert organic wastes — yard trimmings, leaves and many kinds of kitchen scraps — into a dark, crumbly mixture that can be used to improve the soil and reduce your use of fertilizer and water.

### COMPOSTING BIOLOGY 101

Like a simple recipe, your compost pile needs the right mix of ingredients in order to produce the best results. The key materials are nitrogen-rich “greens,” carbon-rich “browns,” water and air. All of these are essential, but they’re easy to mix together for the best results.

**Greens** provide nitrogen, and act as a source of protein for the microbes. Examples of greens are green leaves, coffee grounds, tea bags, plant trimmings, raw fruit and vegetable scraps, and grass clippings.

**Browns** are a source of carbon, and provide energy for the microbes. Examples of browns are straw, sawdust, twigs, dried grasses, weeds and leaves, shredded newspaper.

Like all living things, the microbes in your compost pile need **water** and **air** to live. Water allows the microbes in your compost pile to grow and travel around in the pile to decompose materials. Turning your pile each week with a spade or pitchfork will provide air to aid decomposition and control odors.



GREENS



BROWNS

## 1 Begin with the bin

**Location, location, location.** Pick a spot in your yard that's at least partially shaded and at least 2 feet from a structure like your house or a fence. Other considerations:

- ▶ Convenient for you to add materials
- ▶ Access to water
- ▶ Good drainage
- ▶ Local laws that might restrict where or what you can compost. Contact your township, city or county solid waste office.

**Containers.** You can compost in a simple pile, but using a container or bin helps your compost pile retain heat and moisture and look neat. To get started, it's easy to go with a single bin system. As materials are added and mixed together, the finished compost settles to the bottom of the bin.

**Materials.** Bins can be built from scrap lumber, old pallets, snow fence, chicken wire, or concrete blocks. Typically, several types of composting bins are sold at hardware or lawn and garden stores.



Chickenwire (or hardware cloth) and old wooden pallets make the basis for two easy-to-build compost bins.



**Size.** A pile that is 1 cubic yard (3 feet high, 3 feet wide, 3 feet long) is big enough to retain heat and moisture, but small enough to be easily turned. Home compost piles shouldn't be larger than 5' x 5' x 5'.

## 2 Adding the first materials

**Lay a base.** Start with a layer of browns, laying down 4-6 inches of twigs or other coarse carbons on the bottom of the pile for good air circulation.

**Alternate greens and browns.** Add layers of nitrogen and carbon materials. Make layers about 4-6 inches thick. Once you turn the pile the first time, these materials will get mixed together and compost more efficiently.

**Water as you go.** Your compost pile should be moist, kind of like a wrung-out sponge. Squeeze a handful of compost; if small beads of water appear between your fingers, you have enough water.

Your pile will get water from rain, as well as the moisture in the greens. If the pile gets too wet, you can turn it more frequently to dry it, or add more dry brown materials to soak up the excess moisture.



## 3 As the compost turns

Once you build your pile, the *real* composters get to work — bacteria, fungi and insects help break down the materials in your compost bin. As the organic materials decompose, your pile will get hot on the inside and you might see some steam. In about a week, your compost will be ready for turning.

Use a pitchfork or shovel to mix up the layers of green and brown and move materials toward the center of the pile. You can empty your bin and re-layer, or just work materials around inside the bin. Break up clumps of material and wet the pile as needed.

**Repeat until it's complete.** The composting process can be pretty quick in the summer months. Your compost pile may no longer heat up after just a few weeks. Look in your pile for finished compost — material that is dark and crumbly, fresh-smelling, and no longer looks like what you originally put into your bin.

## Using finished compost

- ▶ Mix in compost to improve soil. In sandy soils, compost acts like a sponge, retaining water and nutrients where it can be reached by plant roots. In clay soils, compost makes the ground more porous, creating tiny holes and passageways that help soil drain more quickly.
- ▶ Spread compost on your lawn to help fill in low spots.
- ▶ Use as a mulch for landscaping and garden plants. Mulches cover the soil around plants, protecting the soil from erosion and the drying effects of wind and sun.
- ▶ Mix compost into pots for potted plants.



## Common problems & solutions

### The pile doesn't heat up.

If the pile is new, you may need to add more "green" to your pile. No heat could also signal a need to wet the pile.

If your pile is old, and you've turned it a few times, you may already have finished compost.

### There's an odor of ammonia.

If the pile is too wet, turn the pile with a shovel or pitchfork to let in air and mix it up.

Add "brown" to your compost pile. Ammonia odors often indicate too much "green."

### The pile is attracting scavengers like raccoons and mice.

Add no food wastes with oils, meats or dairy. The odors from these can attract pests. Keep other food wastes covered and in the middle of the pile.

Covering the bin might help.

TO LEARN MORE  
[www.reduce.org](http://www.reduce.org)

Visit [reduce.org](http://reduce.org) for more information on composting, including tutorials, plans for building your own compost bin, and links to composting Web sites.



Minnesota  
Office of  
Environmental  
Assistance