



Are you tired of storing smelly food waste in your house until trash day? Are you concerned that food in landfills contributes to climate change? Do you need to give your garden a boost with some nutrient-rich plant food? Then it sounds like you're ready for backyard composting! Read through the steps below to learn how to set up your own at-home composting system.

STEP 1: CHOOSE YOUR BIN



TWO BIN SYSTEM

This system is perfect for filling up one bin with food scraps and yard waste and then using the second bin to process your compost into a finished product and get ready for more food scraps. This system is easy to build and there are lots of online resources to guide you.



THREE BIN SYSTEM

This system has three bins so that one has food scraps, one has finished (or nearly finished) compost, and one is an empty bin to or from which compost is turned.



TUMBLER

This system is perfect for the person who has limited outdoor space. Instead of using a pitchfork to turn the compost, you crank the tumbler. You can purchase a compost tumbler at a home or garden supply store or build one using a 50-gallon plastic drum.

See the next page of this guide for links to sample compost bin plans and other resources.

STEP 2: GET THE RIGHT MIXTURE

Composting works through a natural chemical process. In order for your backyard compost to be successful, you will need two parts carbon and one part nitrogen. Nitrogen is found in fresh "green" materials, and carbon is found in dry "brown" materials. See the chart below for examples of these materials. Each time you add new material to your bin, cover it with a layer of fresh brown materials to avoid odors and pests.

NITROGEN-RICH "GREEN" MATERIALS

- Food scraps
- Fresh leaves, plant cuttings, and weeds
- Grass clippings *(Though they will compost, they will also benefit your lawn if left to decompose on your yard.)*
- Fruit and vegetable peels and parts
- Coffee grounds and tea bags

CARBON-RICH "BROWN" MATERIALS

- Dead weeds and dry leaves
- Clipped brush
- Wood chips
- Egg shells
- Sawdust
- Straw
- Soiled paper products *(Paper towels, napkins, shredded paper, and newspaper)*

MATERIALS TO KEEP OUT

- Meat, bones, grease, fats, oils, and dairy products *(These materials can attract pests, and pathogens and pests can survive the composting process if the material does not get hot enough.)*
- Disease or insect-infested plants
- Ashes from charcoal barbecues, fireplaces, or wood stoves
- Human and pet waste

STEP 3: KEEP COMPOST MOIST, BUT NOT WET

The compost reaction works best when the material is a little moist. But if it becomes too wet, it will become anaerobic and start to smell. Your neighbors may not know what the word anaerobic means, but their nostrils will. So be sure to periodically wet your compost so that it stays moist but not wet.

STEP 4: TURN YOUR COMPOST

Compost also needs airflow. If you're using a two or three bin system, use a pitchfork to turn the compost every 3-5 days. Turning is basically just mixing it all up. Once the compost looks mostly broken down, it can be moved to your second bin and you can start over in the first. If using a tumbler, just turn it once every few days.

STEP 5: USE YOUR COMPOST

Chances are you will still have some large debris in broken down compost (think avocado pits, branches, etc.). You can screen this out using a simple screen made from chicken wire attached to a wooden frame. You'll need to make room for your new compost, so every few months or as needed, remove the finished compost, let it cure (or dry enough without becoming brittle), and put it aside in another container for use in the garden.



Finished Compost (Photo: U.S. Department of Agriculture)

Follow these steps, and you will join the proud ranks of the backyard composter! Learn more about home composting through the links below. Good luck, and please contact cleanphl@phila.gov with any questions.

LEARN MORE

COMPOSTING SYSTEM DESIGNS

[How To Build The Ultimate Three Bin Compost System](#) (Rodale's)

[DIY Three Bin Compost System](#) (Pierce County, Washington)

[How to Build a Compost Bin](#) (University of Missouri Extension) *(Multiple System Types)*

[Building your Own Composting Bin: Designs for Your Community](#) (CalRecycle) *(Multiple System Types)*

HOME COMPOSTING RESOURCES

[Composting at Home](#) (U.S. EPA)

[Backyard Composting Tip Sheet](#) (U.S. Department of Agriculture)

[Small Space Composting Guide](#) (Cornell Waste Management Institute)

[Home Composting: A Guide for Home Gardeners](#) (Penn State Extension)

[Managing the Three Bin Composting System](#) (University of California Cooperative Extension)

INDOOR WORM COMPOSTING (VERMICOMPOSTING)

If you do not have enough space for an outdoor compost pile, you can compost materials indoors using a special type of bin, which you can buy at a hardware store or gardening supply store or build yourself.

[Learn how to build and maintain an indoor worm composting bin.](#) (North Carolina State Extension)

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