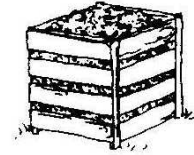


COMPOSTING



Tips for the Home Gardener

For home gardeners, creating compost is an inexpensive and environmentally-friendly method of improving soil structure and adding vital nutrients to your garden. You can use partially composted materials as mulch, fully composted materials as a soil or soil additive, and nutrient-rich compost tea as a fertilizer for your houseplants and garden beds.

About Composting

Composting is the process of decomposition when organic matter is broken down by biological and chemical means. Microbes and other living organisms, as well as oxygen and water, eventually transform the matter into nutrient-rich topsoil. In common usage, composting means that humans are actively aiding and accelerating this natural process; the decomposition of organic materials in nature occurs at a much slower pace.

Starting a Compost Pile

Composting is relatively easy for any home gardener, requiring only a little routine maintenance. If you elect to use a bin, you have many options for personalizing it to your space and your budget. For a sampling of different bin options, see Longwood's "[Compost Bin Guide](#)". The designated unit should measure about 3' x 3' x 3', which is the minimum critical mass for good heating. In units large than this, it becomes difficult to turn the pile, and the compost tends to compact under its own weight.

After you acquire your container, place it in an accessible area of your yard. To avoid attracting mice or other pests into your home, place it away from the house.

Begin building your pile by alternating layers of "green," moist materials (kitchen scraps, grass clippings, green yard waste) with "brown," dry materials (dry leaves/plants, wood chips, straw, hay). If you choose, sprinkle topsoil between the layers to help get the decomposition started. Finally, turn the pile with a rake or shovel.

As you continue building your compost pile, always incorporate equal amounts of dry and wet materials to preserve the balance of moisture and nutrients. See below for guidelines on what can and cannot be composted. For best results, turn the pile every few days.

<u>What you can compost:</u>	<u>What you should NOT compost:</u>
Grass clippings Leaves Raw fruit and vegetable scraps Egg shells Coffee grounds Unbleached coffee filters and unbleached napkins Yard and garden debris Potting soil Manure from herbivores (i.e. chickens and rabbits)	Cooked food scraps Meat and bones Dairy products Fatty foods and oil products Human and pet wastes Diseased or pest-ridden plants Seeding weeds Manure from carnivores or omnivores

Tips for Successful Composting

- ☞ Balance wet and dry materials. Add nitrogen-rich green wastes (green leaves, weeds, grass clippings, kitchen scraps) and carbon-rich brown wastes (straw, dried leaves, old hay) in equal parts to your compost pile. If you are keeping a good balance of carbon and nitrogen, the pile should smell earthy or odorless. An ammonia-like smell means too many nitrogen-rich materials have been added, and you should incorporate brown materials to raise the amount of carbon.
- ☞ Chop or shred materials. Smaller materials equal larger surface areas for faster decomposition.
- ☞ Limit the size of the pile to 3' × 3' × 3'. This is the minimum critical mass for good heating. The warmer a pile is, the faster it will decompose. If a pile is too big, it will be difficult to aerate properly.
- ☞ Aerate and mix the pile by turning it occasionally with a shovel or rake. This will increase the rate of decomposition and microbial activity, providing you with finished compost more quickly. If your pile develops a putrid odor, mix it well, as it probably is not getting enough oxygen.
- ☞ Monitor the moisture levels. Compost should be moist and springy to the touch, but not dripping—excess water drives out oxygen and lends your pile a bad odor. A lack of moisture significantly slows the decomposition process. Add green materials or a bit of water if a pile is too dry, and add brown materials if it is too wet.
- ☞ Keep the pile warm by situating it in an area that gets partial sun; too much sun may dry out the pile. Heat is both produced and required by the natural decomposition process, so composting will occur most rapidly in the warm summer months. A pile may go dormant in cold winter weather, with decomposition resuming in the spring.
- ☞ Welcome beneficial creatures and insects. Earthworms, beetles, and similar decomposers will speed the breakdown of your yard and kitchen waste.

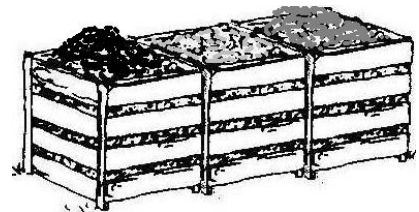
Harvesting Your Compost

Compost can take anywhere from a few weeks to a year to decompose to the proper stage. It all depends on what was added, how often it was turned, what typed of container it is in, and how cold the climate is. You will know it is ready for topsoil when it has a rich, coffee-brown color, a crumbly, light texture, and an earthy smell. Partially decomposed compost can be used as mulch. Nutrient-rich compost “tea” (drippings from the pile that you can catch in a tray) can be poured on garden beds as a light fertilizer.

Longwood's Compost Demonstration Site

Visit Longwood's Example Garden (in the Idea Garden) for a sampling of the different composting methods available to homeowners and home gardeners, and to view compost in various stages. This site contains a pre-fabricated compost bin, a tumbler unit, a wooden single-bin unit, and a wooden three-bin unit.

Assistance in constructing the compost demonstration site was provided by the Master Composters of Chester County. For more information, contact the Chester County Solid Waste Authority (610 - 273 - 3771 or email information@chestercswa.org).



About Longwood Gardens' Composting Operation

*Longwood
Gardens®*

All of Longwood's organic materials are recycled into compost and reincorporated into the gardens as soil or mulch; the Garden operates under the policy that no carbon materials leave the property.

Longwood staff deposit leaves, brush, woody materials, discarded plants, soil scraps and other garden debris into bins that are delivered to Abbondi, an onsite composting facility.

Leaf litter and woody materials are processed for mulch that is used on garden beds and unpaved pathways. Other organic items are mixed into the main compost pile, and supplemented with manure and wood chips obtained from local sources.

Temperatures in the piles are continuously monitored, and when the piles are warm enough they are turned by machine. Aeration as such helps speed the decomposition process. When the compost is finally completed, the nutrient-rich compost is mixed into custom soil blends.

Visit Longwood Gardens to see and appreciate the rich, composted soils that fill the indoor and outdoor planting beds.