

HOME COMPOSTING

What is composting?

Composting is a controlled process of decomposition of organic material. Naturally occurring soil organisms recycle nitrogen, potash, phosphorus, and other plant nutrients as they convert the material into humus. Composting is a convenient, beneficial and inexpensive way to handle your organic waste and help the environment. It reduces the volume of garbage requiring disposal; saves money for you and your community in reduced soil purchases and reduced local disposal costs; and enriches the soil. Using compost adds essential nutrients, improves soil structure, which allows better root growth, and increases moisture and nutrient retention in the soil. Plants love compost!

What you should compost?

Yard wastes such as leaves, grass clippings and weeds make excellent compost. Fruit and vegetable scraps, plus food wastes such as coffee grounds, tea bags, and eggs shells, can be composted. To keep animals and odors out of a pile, do not add meat, bones, fatty food wastes (such as cheese, grease and oils), dog and cat litter, and diseased plants. Do not add invasive weeds and weeds that have gone to seed to the pile.

Elements of a good compost pile

The Biodegraders

Nature has provided an army of workers who specialize in decomposing organic material. Bacteria, fungi, molds, earthworms, insects and other soil organisms eat all types of organic material and in the process convert nutrients into a form plants can utilize. The process of composting is simply a matter of providing the soil organisms with food, water and oxygen.

Organic Material

Organic material contains varying amounts of carbon and nitrogen, which nourish the organisms naturally present in a compost pile. Biodegraders need both carbon and nitrogen. An easy way to provide both of these is to remember that brown, woody materials, such as autumn leaves, are high in carbon while green, moist materials, such as grass clippings, are high in nitrogen. Alternating layers of brown and green materials will yield finished compost in three to eight months. Leaves alone break down in 6 to 15 months. Grass clippings or food scraps composted alone result in unpleasant odors because they contain more nitrogen than the compost organisms can use. Layer leaves or straw with green material, or let it dry until it turns brown before composting it alone.

Air

Biodegraders need oxygen. Lack of oxygen will slow down the composting process and cause odors. Turn the compost pile, fluff it with a hoe, or build air passages into the pile with cornstalks to provide oxygen to the organisms.

Moisture

Compost organisms need a moist environment. The pile should be as damp as a wrung-out sponge, but not dripping wet. Make sure leaves are damp when they are added to the compost pile because they will not break down if they are dry. Since moisture evaporates as the pile heats

up (a sign of active composting), let rain and snow replace it, or add water during dry spells. A cover helps retain moisture in hot weather.

How to Make a Compost Pile

There are as many different ways to make compost. Build or purchase a compost bin. These can be found at a local hardware store or from a garden catalogue or nursery. Enclosed compost piles keep out pests, hold heat and moisture, and have a neat appearance. Bins can also be simply made of wire, wood, pallets, concrete blocks, even garbage cans with drainage holes drilled in them. In urban areas, rodent-resistant compost bins - having a secure cover and floor and openings no wider than one-half inch - should be used.

Set up the bin in a convenient, shady area with good drainage. A pile that is about three feet square and three feet high will help maintain the heat generated by the composting organisms throughout the winter. Although a smaller pile may not retain heat, it will compost.

Start the pile with a layer of coarse material such as corn stalks to build in air passages. Add alternating layers of "brown" and "green" materials with a shovelful of soil on top of each layer. Shredding leaves or running over them with a lawn mower will shorten the composting time. Be sure to bury food scraps in the center of the pile.

High Nitrogen "Green" Ingredients	High Carbon "Brown" Ingredients
grass clippings	autumn leaves
weeds	straw
food wastes: fruit & vegetables, coffee grounds, tea bags, egg shells	paper towels, napkins, bags, plates, coffee filters, tissue and newspaper
manure (cow, horse, chicken, rabbit)	cornstalks
seaweed	wood chips
alfalfa hay/meal	saw dust
blood meal	pine needles

Add water if the materials are dry. As time goes on, keep oxygen available by fluffing the pile with a hoe or compost turning tool each time material is added. A complete turning of the pile - so the top becomes the bottom - in spring and fall should result in finished compost within a year. More frequent turning will shorten the composting time.

Composting can be done indoors using an earthworm farm.

How to use compost

When the composted materials look like rich, brown soil, it is ready to use. Apply one-half to three inches of finished compost and mix it in with the top four inches of soil about one month before planting. Compost can be applied as a top dressing in the garden throughout the summer. Compost is excellent for reseeding lawns, and it can be spread one-quarter inch deep over the entire lawn to rejuvenate the turf. To make potting soil, mix equal parts compost, sand and loam. Put the compost through a sieve to remove large particles - these can go back into the pile.

Mulching

Grass clippings, leaves and woody yard wastes can be used as mulch in gardens and around shrubs to keep the soil moist, control weed growth and add nutrients. Woody materials should be chipped or shredded. Use a mulch of pine needles around acid-loving plants. Leaves will work first as mulch, then as a soil enricher as they decompose. Grass clippings should be dried before using as mulch. Do not mulch with grass clippings, which have been treated with herbicides; composting them first, however, will break down the herbicides.