

BROWNS AND GREENS MAKE GOLD!

A Guide to Backyard Composting

Organic materials like leaves, branches, grass clippings and food scraps make up more than 50% of what Denver residents send to the landfill each year. Rather than trashing these valuable materials, compost them instead! Composting, which is the managed breakdown of organic materials into a soil amendment known as compost, not only keeps organic materials out of the landfill, but also enables resources to be utilized locally to improve the health of soil and plants!

BROWNS & GREENS MAKE HEALTHY COMPOST

BROWNS (carbon-rich)

- Autumn leaves
- Broccoli and cabbage stalks
- Chipped branches
- Coffee filters
- Lawn thatch
- Paper towels, napkins and facial tissues
- Stalks from perennial plants
- Straw
- Toilet paper and paper towel tubes
- Twigs
- SMALL AMOUNTS:**
- Saw dust

GREENS (nitrogen-rich)

- Crushed eggshells
- Fruit and vegetable peels and trimmings
- Garden waste (*overgrown vegetables*)
- Grass clippings (*no pesticides*)
- Green leaves
- Human hair and pet fur
- Moldy food (*no meat, fat, cheese or bones*)
- Weeds without mature seeds
- SMALL AMOUNTS:**
- Citrus fruit and rinds
- Coffee grounds
- Manure from herbivores



Composting is a fun and rewarding activity that allows the whole family to participate in recycling! Here's how to get started:

1. **Choose** a level, partially sunny area at least 3 feet by 3 feet. You can build an open pile, a pile inside a pre-assembled plastic bin or make your own bin.
2. **Loosen** the soil about an inch or so deep under your pile area with a garden fork or shovel. This allows the microorganisms in the soil to enter your pile.
3. **Alternate** 4 to 6 inch layers of mixed chopped browns (carbon-rich materials) and 2 to 3 inch layers of mixed chopped greens (nitrogen-rich materials).
4. **Add** a handful of garden soil on top of the layers to introduce the friendly bacteria that help decompose the carbon and nitrogen material.
5. **Mix** the layers with a garden fork.
6. **Water** the layers until they feel like a wrung-out sponge.
7. **Continue** building layers of browns and greens, remembering to throw a handful of soil on top of each layer. Mix each new carbon and nitrogen layer before watering.
8. **Cover** the top of your pile with black plastic or straw, or close the lid on your bin, to keep the pile from drying out. Direct sunlight slows the composting process.
9. **Turn** your pile once a week or so with a garden fork or commercial aerating tool to provide air channels.
10. **Use** your compost! It can take between 2 to 24 months to create compost, plus a 2 month aging period before you use your compost.

NO meats, fats, cheese, oils, poultry, fish, bones, or dog or cat feces.



Keys to a Healthy Compost Pile

SIZE

Collect enough material so that the pile is a minimum of 3 feet x 3 feet x 3 feet and a maximum of 5 feet x 5 feet x 5 feet. A wide variety of commercial bins are available online. No one bin is recommended since the composting process is similar whether using an enclosed bin, compost tumbler, homemade bin, or free-form pile.

SURFACE AREA

All green and brown materials must be chopped into 1 to 2 inch pieces. Either use a shovel, chipper/shredder (for branches or woody materials like corn stalks), or lawnmower to do this. Reduced particle size increases the surface area available for microorganisms to begin the process of decomposition, allows air to circulate, and decreases the time it takes for the composting process to finish.

COMPOSITION

A compost pile should be composed, by volume, of 2/3 mixed chopped brown material and 1/3 mixed chopped green material. Green material is softer, higher in water content, and often green in color. Brown material is tougher, lower in water content, and sometimes brown in color. Alternate

4 to 6 inch layers of chopped browns with 2 to 3 inch layers of chopped greens. As layers are added, sprinkle them with a handful of garden soil and mix them together. Avoid meats, fats, dairy products, bones, dog/cat feces, weeds with mature seeds, diseased plants and materials that have been treated with chemicals.

WATER

Add just enough water to each layer of your pile as you build it so that it's as wet as a wrung-out sponge. An overly wet pile can lead to unwanted odors, while one that is too dry may show little decomposition.

AIRFLOW

Compost piles should be turned every week or so with a garden fork or compost aerator tool in order to introduce air and mix layers together. In the initial stages of composting, steam is often seen when piles are turned.

TIME

After compost materials have finished the active, heat-producing stage and most materials can no longer be recognized, the compost needs to stabilize and mature for approximately two months before being used as a soil amendment.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Odors	Not enough air	Turn the pile.
	Too wet	Turn the pile and add extra sources of coarse carbon, such as shredded twigs, leaves, straw or corn stalks.
	Too much high nitrogen material	Add extra sources of coarse carbon, as listed above.
Pile does not get hot	Lack of nitrogen	Mix in high-nitrogen materials such as grass clippings, shredded alfalfa hay or meal, or small amounts of food waste.
	Pile is too small	Add more material until pile is at least 3 feet x 3 feet x 3 feet.
Pile is dry	Not enough water	Moisten the pile as you build it, and as you turn it.
Pile is attracting flies	Decaying food scraps	Bury food scraps well below the surface of the compost pile.

Using Compost

After most of the original materials have decomposed and the resulting compost appears dark, crumbly and smells like a damp forest floor, it needs to sit for 6 to 8 weeks, covered, to allow the pH of the compost to neutralize.



GARDEN BEDS

For new beds, dig 1 to 2 inches of aged compost into the top several inches of soil. Several times during the growing season, use a garden trowel to add small amounts of compost into the soil around all actively growing vegetables, flowers or herbs.

TREES & SHRUBS

After cultivating the soil around the base of trees and shrubs, spread an inch or two of compost around the drip line. Leave the area immediately surrounding the plant free of compost to prevent small animals from burrowing during winter months.

LAWNS

Feed your lawn by spreading a thin layer of aged compost over newly aerated grass. This helps loosen clay soil and encourages healthier, deeper root structure. Deeper roots allow plants to withstand longer time periods between watering.

HOUSEPLANTS

Enrich potting soils by adding up to 20% finely screened and aged compost, or make your own moisture-retaining potting soil by mixing finely screened compost, sphagnum peat and perlite.



Troubleshooting Tips

If you supply the proper conditions (size, surface area, variety of materials, water and air) you should have little difficulty maintaining your compost system and producing a rich supply of compost. Use the solutions below to correct the most common problems.

FREE Classes
Learn to Backyard Compost classes are offered from May through mid-October at the Denver Compost Demonstration Site.

Sign up today at dug.org/compost or call 303-292-9900.

CONTACT US

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