

Backyard Composting of Yard, Garden, and Food Discards

Instead of disposing of yard trimmings and kitchen scraps, you can compost them in your own backyard. Composting is an easy, fascinating, and natural way to recycle. Compost can be made from most organic materials such as leaves, kitchen scraps, and yard trimmings, and it can improve the health of your soil and plants. You can be as involved as you like with your compost pile: simply stack things up and wait for nature to take its course, or turn, water, and monitor the pile to speed up the process.

Organic materials that can be composted are commonly characterized as “browns” and “greens.” Browns are sugar-rich carbon sources that provide energy to microorganisms, absorb excess moisture, and provide structure to the pile. Greens are protein-rich nitrogen sources that provide energy and moisture to microorganisms. You can add these materials to your compost bin:

NITROGEN (GREEN)	CARBON (BROWN)
Grass clippings	Leaves, twigs, yard trimmings
Houseplant leaves	Yarn, thread, string, rope
Hair, fur, nail clippings, feathers	Paper rolls (towel, toilet, gift wrap)
Vegetables, fruits	Nut shells (not walnut)
Coffee grounds, filters	Cotton balls, swabs
Tea bags, leaves	Dryer lint
Egg & crustacean shells (rinsed)	Cotton, wool, silk, felt, hemp, linen, burlap
Old herbs, spices	Vacuum contents, floor sweepings
Flowers, dead blossoms	Straw, hay, corn cobs
Beer, wine making leftovers	Newspaper, non-glossy paper
Juice, beer, wine, dregs	Pizza and cereal boxes, paper egg cartons
Freezer-burned vegetables, fruits	Grains, cereal, crackers, brewery hops
Aquarium water, algae, plants, seaweed	Paper napkins, bags, baking cups, tablecloths
Cooked food, bread, tortillas, pita bread	Sawdust, wood bark, and chips
Rabbit, cow, sheep, chicken, horse manure	Bamboo skewers and toothpicks

The following types of organic materials should **not** go into compost piles:

- Dog or cat feces and litter, dirty diapers, used facial or toilet tissue
- Meat, fish, bones, fats, grease, lard, oils, eggs, butter, milk, yogurt, and sour cream
- Yard trimmings treated with chemical pesticides
- Diseased or insect-infested plants
- Black walnut tree leaves or twigs
- Weeds that have gone to seed or have invasive roots
- Charcoal ash, coal, and wood ash
- Pressure-treated lumber, pressed wood, and plywood
- Magazines, catalogs, wrapping paper, greeting cards with metallic inks, and photographs

Set up your compost pile or bin in a convenient location more than six feet away from your home or wooden structures. To help it retain moisture, place it in a shaded area within reach of a garden hose. Put it in a flat, open space that is protected from flooding or runoff to surface waters or wells.

You can mix materials all at once to form a pile or add organic materials as they become available. Build your pile three to five feet high and at least three feet in diameter so it can become self-insulating to retain heat. Add four or five inches of carbonaceous materials (browns), then two or three inches of nitrogenous materials (greens), and keep alternating the layers. Thoroughly water each layer to ensure even moisture distribution. Toss in a handful of soil on each layer to introduce more microorganisms. Top the pile with five inches of browns to prevent flies and other pests and provide a filter for odors.

For a simple compost recipe, combine leaves, grass, food scraps, and coffee grounds at a 2-to-1 ratio mixture of browns and greens. **To help get your compost pile hot**, dust small amounts of one or more of the following (in meal form) on top of your greens: alfalfa, bone, hoof, blood, soybean, canola, or cottonseed. You can also add a mixture of water and molasses, sugar, syrups, or flat soft drinks.

Chop materials into small pieces so they will break down faster. Run a lawn mower over leaves before or after raking. Rigid particles provide structure and ventilation to your pile, so add some small branches.

The decomposition process will slow down if there is too little or too much moisture. About 50% moisture is needed in the pile. The pile should feel like a wrung-out sponge. Open piles can be loosely covered with a tarp to hold in moisture. If the pile gets too wet, add dry leaves, paper, or sawdust.

Compost piles need ventilation. To aerate the pile, turn the organic materials with a digging fork or shovel. If you are unable to turn the compost pile, poke it with an aerating device or broom handle to help air flow into it. Mixing the pile once per week by moving the material from the outside to the center will hasten the composting process.

It takes one or two years to compost if you leave the pile alone, or several months if you aerate the pile weekly. The pile will shrink 20% to 70% depending on the organic materials it contains.

Note: This is a brief excerpt of a 5-page extension factsheet. The full publication may be accessed at <https://content.ces.ncsu.edu/backyard-composting-of-yard-garden-and-food-discards>
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For more information on composting, go to <https://composting.ces.ncsu.edu>