



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Why mulch and compost?

Save money

- ▼ Lower your water bill.
- ▼ Buy less fertilizer.
- ▼ Stop buying lawn and leaf bags.

Save time and effort

- ▼ Stop bagging grass and leaves.
- ▼ Spend less time watering.
- ▼ Spend less time fertilizing.

Help your community

- ▼ Save landfill space.
- ▼ Conserve water resources.
- ▼ Reduce water pollution.

Mulching and Composting

GI-036
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What is mulch?

Mulch is a material that is used to protect the soil and to inhibit weed growth by covering the ground. Good mulches include wood chips, leaves, grass clippings, and compost. They can benefit your lawn and garden by preventing erosion, suppressing weeds, retaining soil moisture, moderating soil temperature, and adding nutrients as they break down slowly.

How to use mulch

- ◆ Put a 3- to 4-inch layer of mulch around your trees, shrubs, and garden plants. Mulch should not be piled up against the stems or trunks of plants.
- ◆ Create a self-mulching lawn! Wait to mow until your grass is between 2 and 4 inches high. Then mow off only the top one-third of the grass, and don't bag the clippings. This way, the clippings will feed your soil and won't smother your grass.
- ◆ If you have too many clippings, rake them into mulch layers around trees and shrubbery.

How to use your compost

- ◆ To plant a lawn or garden, mix 1 to 2 inches of compost into the top 6 inches of soil.
- ◆ To maintain a lawn or garden, sprinkle a 1/4- to 1/2-inch layer of sifted compost on it once each year and water in the compost.
- ◆ Mix 3 to 4 inches of compost into the top 8 to 10 inches of soil for intensive gardening.
- ◆ Use compost as about one-third of a potting soil mix (with equal parts topsoil and sand) to add nutrients and to control fungus.

Composting basics

- ◆ Composting works best when you combine the same amount (by weight) of "green" materials with "brown" materials as a mixture. Vegetable and fruit scraps, green grass clippings, and manure are "green."

What is compost?

Compost forms when you mix things like leaves, grass clippings, vegetable and fruit scraps, coffee grounds and filters, and used tea bags, and the mixture breaks down.

It eventually forms humus, which you can use to enrich your soil. Compost has many of the nutrients that plants need. It can be used as a mulch or topdressing, or mixed into the soil.



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Dead leaves, dry hay, wood shavings, and shredded paper are “brown.”

- ◆ The compost pile should remain moist throughout, like a wrung-out sponge, but not soaked.
- ◆ Composting goes faster in a pile at least 3 feet high and 3 feet in diameter, with all materials broken into small pieces and well mixed.
- ◆ You can tell a pile is quickly and actively composting because it can get at least as hot as the hot water in your house. Temperatures this high (140 degrees Fahrenheit or higher) can kill weed seeds and germs that cause disease. You can help your pile stay hot by putting it in a bin or covering it with a tarp. You can even use a special compost thermometer to follow the temperature of your pile.

Avoid these materials

- ◆ Meat, bones, fish, dairy products, grease, and oil: they cause odors and attract pets and pests.
- ◆ Pet droppings: they can harbor diseases.
- ◆ Weeds with seeds or runners: you could wind up spreading them with your compost.
- ◆ Diseased and insect-infested plants: the diseases and pests could remain in your compost and spread..
- ◆ Shavings and sawdust from treated wood, and other materials containing strong preservatives or other toxins.
- ◆ Ashes: they slow the composting process.

Troubleshooting

- ◆ A bad odor means your compost has too much “green” material, or it is too wet. You can remedy this condition by turning the pile and adding dry leaves, sawdust, or other “brown” materials. If the odor persists for more than a day, cover the pile with a layer of mulch.
- ◆ If material is not breaking down and your pile is dry, turn it and add water until the whole pile is moist.
- ◆ If material is not breaking down and your pile is damp and sweet-smelling, add more “green” materials, such as grass clippings.
- ◆ If your pile is not warm enough, or if it is warm only deep in its center, add more materials to increase its volume. You can also move the pile into a container.

- ◆ If your pile has flies, roaches, ants, or maggots, bury food materials well under a layer of leaves, and make sure the pile is moist but not soaking wet. Any other insects in your pile are probably harmless to the compost.
- ◆ If your pile has fire ants and it is dry, turn it (carefully!) and add water. Another alternative is to use a low-toxicity bait formulation near, but not in, the pile.

Compost variations

Containers. You can store compost in a bin to help retain moisture and heat, keep out pests, and keep your yard tidy. You can make containers with lumber, pallets, concrete blocks, wire fencing, or other materials. For instructions, see *A Green Guide to Yard Care*, GI-028, a publication of the Texas Commission on Environmental Quality (TCEQ).

Worm composting. You can use redworms (also called “red wigglers”) and brown-nose worms to compost food scraps and paper, even in an apartment. Worm composting is the best way to compost paper. For information on how to compost with worms, see the TCEQ publication *Worm Composting*, GI-219.

Burying problem materials. Mix smelly food scraps and insect-infested garden plants with soil and bury at least 8 inches deep in unused garden space. If the material stays moist, it will compost within a year without producing an odor or spreading diseases or pests.

Additional information

- ◆ *A Green Guide to Yard Care*, TCEQ publication number GI-028, offers comprehensive information on mulching, composting, grass-cycling, xeriscaping, and integrated pest management.
- ◆ To order this and other publications about composting and yard care from the TCEQ, call TCEQ Publications, 512-239-0028.
- ◆ Contact your city’s recycling coordinator or your county extension agent.
- ◆ For more information on mulching and composting, go to <www.tceq.state.tx.us/assistance/compost/BackyardComposting.html>.
- ◆ To print or order TCEQ composting publications electronically, go to the TCEQ Web site at <www.tceq.state.tx.us/publications>.

Sources: Texas Commission on Environmental Quality; Texas Cooperative Extension; Jerry Minnich et al., *The Rodale Book of Composting*, Rodale Press; Bert Whitehead, *Don’t Waste Your Wastes—Compost’Em*, Sunnyvale Press; Mary Appelhof, *Worms Eat My Garbage*, Flower Press; Austin Community Gardens.



EASY COMPOST RECIPE

- ▼ Select an area that measures 4 feet by 8 feet, where water does not puddle when it rains.
- ▼ Place the bin or pile on half of this space, mixing brown and green materials in equal parts by weight, or about 3-to-1 (brown-to-green) by volume. Chop or shred woody materials for the pile. Water the pile as you build it to keep it thoroughly moist like a wrung-out sponge.
- ▼ Build the pile to a height of 3 feet to speed up the composting process.
- ▼ Mix greens and browns as you add to the pile. When adding kitchen scraps, bury them 10 inches or so into the pile to avoid attracting pests.
- ▼ Turn the pile over with a hay fork or shovel every two to three weeks; add water as needed.
- ▼ You can sift and use finished compost when the materials break down and smell like rich soil.

