

A Guide to BACKYARD COMPOSTING



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“Compost is more than a fertilizer or a healing agent for the soil’s wounds. It is a symbol of continuing life...The compost heap is to the organic gardener what the typewriter is to the writer, what the shovel is to the laborer, and what the truck is to the truck driver.”

— J.I. Rodale



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What is Compost?

Compost is a natural fertilizer and soil conditioner. You can make it at home from organic materials such as kitchen scraps and garden waste. When put into a pile, these materials naturally decompose, turning into a rich, soil-like material called compost or humus. Composting is basically a way of speeding up the natural process of decomposition.

Great Reasons to Compost

Reduce chemical fertilizers. Save money and keep local waterways clean.

Improve your soil and your garden. Compost is rich in organic matter, and is a natural soil builder.

Reduce the amount of food and garden waste you put at the curbside.

Reduce greenhouse gas production. When not composted, food scraps often end up in a landfill where they become a source of methane, a major offender when it comes to climate change!

It’s easy and fun! Once you start a compost pile, maintenance is simple.

The Keys to Good Compost

Balanced diet: For optimal decomposition, the carbon–nitrogen ratio in a compost pile should be about 30:1. Carbon-rich (“brown”) materials include dry leaves, corn stalks, and sawdust. Nitrogen-rich (“green”) materials include food scraps, coffee grounds, and grass clippings.

Temperature: Compost piles are most active at temperatures of 44° to 52° Celsius. Decomposition drops with the ambient temperature, and stops altogether if the pile freezes.

Oxygen: Compost depends on the production of aerobic (oxygen-loving) bacteria, which do the work of decomposition.

Moisture: Compost should be moist, but not wet—excess water will decrease oxygen levels, slowing down decomposition.

How to Use Compost

- Add to potting soil for indoor seed-starting.
- Use as mulch to protect plants’ roots from summer sun and harsh conditions.
- Incorporate into your garden to improve soil texture: blend the compost into the soil to a depth of 12 inches, making sure it is evenly dispersed through the entire planting area.
- Make compost tea—a natural, organic fertilizer, made by mixing finished compost with water and letting it sit for a couple of days. Apply compost tea to leaves or soil to provide your plants with a boost of nutrients.



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Tip: In the fall, collect dry leaves into an old garbage container so that you can use them for your carbon or 'brown' layers all year-round.

Tip: If you have room, set up two composters so you can add to one bin as the other one matures.

Tip: Sifting your compost through a mesh screen will remove large chunks or unfinished material.



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Ten Easy Steps to Making Compost

1. **Select a site:** In a sunny, well-drained location, measure out an area to site your bin. Three square feet is an ideal bin size, and is the minimum size necessary to generate the required heat in the shortest possible time.
2. **Purchase a bin:** Contact your municipality, a local store, or build your own rodent-proof compost bin.
3. **Form base layer:** In the bottom of the bin, arrange a six-inch layer of coarse materials such as sticks, prunings, and bark pieces. This will allow air to filter into the center of the heap without smothering the soil surface.
4. **Alternate layers:** After the base layer is formed, you can start using your compost bin daily. As you accumulate kitchen or yard waste, add it to the bin in layers, starting with 2 to 4 inches of "green" organic matter. Follow this with more carbon-rich "brown" matter, and continue to alternate between green and brown, ensuring that no organic layer is ever more than 15 inches deep.
5. **Moisten:** Lightly water the pile if necessary—compost ingredients should be damp, not soaking.
6. **Cover:** The compost pile should always be topped by a thick carbon (brown) layer. Using a lid will discourage rodents and other animals.
7. **Monitor:** Each time you add material to the bin, give it a look and a sniff. If the pile has an unpleasant odor, or does not appear to be gradually shrinking, this indicates a problem with the pile.
8. **Add more layers:** The pile will shrink as its contents decompose; continue adding material.
9. **Check:** Compost is generally ready to use after about 2–3 months. This can vary depending on things like temperature and the materials used. Once your bin starts to get full, check to see if the bottom portion of the pile is ready to harvest in order to make room at the top.
10. **Harvest:** Begin harvesting when the compost at the bottom and centre is decomposed. Dig out the compost with a shovel, using the door at the bottom of a commercial bin. If you have built your own bin, remove the top new layers and dig the compost from the centre.



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Common Questions

How long will it take?

This depends on the size of the pile, the size of the ingredients used, and the amount of heat generated. Cold piles can take up to a year to decompose, but fully active piles can mature in 3–4 months.

Can I speed up the process?

- Chop and shred larger items, making it easier for bacteria to break them down.
- Give your compost heap a “big meal” rather than small snacks. Collect all your organic waste over a couple of days and then add it in one big bunch. The more you add at one time, the more your compost will heat up.
- Keep your compost pile in the sun.

What happens when the pile freezes?

The decomposition process stops when the pile freezes, but will start again when rising temperatures thaw the microorganisms that make your compost work. If you have room, you can continue to add materials to the frozen pile.

Do I need to turn the pile?

A pile that is built correctly should not need to be turned. This means constructing a pile that is carefully layered, well-ventilated and contains adequate moisture content. If issues arise, air can be added by manually turning the pile, or poking holes into the pile using pipes or a pitchfork.

Do I need to add lime (ground agricultural limestone) to the pile?

No. Lime and other minerals are not required in any compost pile. If your garden requires such amendments, add them straight to the soil.

Troubleshooting

Symptom	Diagnosis	Treatment
Unpleasant odour	Lack of air	Make sure the bottom is not continually waterlogged. Aerate the pile by turning it or poking holes into it.
Unpleasant odour	Nutrient imbalance—often due to too much nitrogen	Rebalance the pile: adding more carbon (brown) material will balance excess nitrogen.
Fruit flies, rodents, animals	Food left exposed	Always bury food with a thick layer of brown material, and cover the pile with a secure lid.
Nothing happening?	Too dry	Add water and aerate.
	Too much carbon	Add nitrogen-rich materials.
	Too cold	Move to a sunnier position. Wait for ambient temperature to rise.

What to Compost

COMPOST THIS! THE "GREENS" – NITROGEN	COMPOST THIS! THE "BROWNS" – CARBON	DON'T COMPOST THIS!
Coffee grounds	Ashes, wood and bark	Coal ash
Food waste	Shredded cardboard	Colored paper
Garden waste	Corn stalks	Diseased plants
Grass clippings	Leaves	Inorganic materials
Hay	Shredded newspaper	Meat, bones and fish
Hops (used)	Straw	Fats and oils (sauces/dressings)
Manures	Pine needles	Dairy
Seaweed	Sawdust	Pet droppings
Weeds that have not gone to seed	Stem and twigs (cut up)	Weeds that have gone to seed

For more information on composting, check out these resources

1. *The Rodale Book of Composting*. Deborah Martin and Grace Gershuny. Rodale Books, 1992.
2. *Compost this Book: The Art of Composting for Your Yard, Your Community, and the Planet*. Tom Christopher and Marty Asher. Sierra Club Books, 1994.
3. *Compost Breakdown: A Guide to Mid-Sized Composting Success*. Ravenna Barker. Food Share Toronto, 2004.
4. Composting 101 www.composting101.com
5. The Recycling Council of Ontario www.rco.on.ca

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Evergreen is a national charity that makes cities more livable.
Evergreen's Common Grounds program protects and restores natural and cultural landscapes in urban and urbanizing communities across Canada.

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